Layout Verification and Archive Signoff

Objective: Completing this signoff determines the readiness of a design for mask procurement and archive. This form should be completed after final verification has been run..

Part Number (i.e. 773)	Die Revision (i.e. B)	Wafer Fab Process Flow (i.e. ABCMOS)
9887A	—	L40 DPTM
All Layer Revision: [✓]		†Partial Layer Revision: [ ]
Cadlib Process: L40 DPTM		Cadlib Version: 20

†*Note: Partial layer revisions require an XOR job to verify that no other layers were modified.*

1.0 List Instance Masters Run   Run Date: 5-13-02

2.0 Design Rule Check   Run Date: 5-14-02

Final DRC after layers have been generated and placed.

Self-intersecting, Discarded and Off-Grid errors are reported in the <jobname>.err file.
Self-Intersecting and Discarded geometries CANNOT be signed off. They must be fixed.

2.1 Non-45, Off grid or Acute angle geometries?   AESD_SMALL_SR   Y [✓] N [÷] n/a [ ]
Comment/Action: ESD cells, AESD_SMALL_SR-A,
ESDOUT, ESD-POWER-NDIO, AESD_NSR, ESD, ESD_A

2.2 Run "listdrc" on the <jobname>.sum file and include the printout.   Y [✓] N [ ] n/a [ ]
Were there any violation?; If YES, have the appropriate people sign off.
Design Engineer: _____
Process Engineer: _____
CAD Engineer: _J. K. (New) 5/14/02_____
Comment/Action: TSMC Parts PPSFT35 and NPSFT35

2.3 Were the command files MODIFIED?   Y [ ] N [✓] n/a [ ]
If modified, have appropriate people sign off:
Design Engineer: _____
CAD Engineer: _____
Comment/Action: _____

3.0 Layout versus Schematic   Run Date: 5-14-02

Final check run after layers have been generated and placed.

3.1 Were there any CONNECTIVITY violations?   Y [ ] N [✓] n/a [ ]
If yes, include copy of .lvs file and get appropriate sign off:
Comment/Action: _____

DM-6003 REV. B PAGE 2 of 3

ANALOG DEVICES

CODE IDENT NO.
24355

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3.2   Were there any SIZE violations?   Y [   ] N [✓] n/a [   ]
      If yes, include copy of .lvs file and get appropriate sign off:
      Design Engineer:_____
      CAD Engineer:_____
      Comment/Action:_____

3.3   Has NETLIST been MODIFIED?   Y [   ] N [✓] n/a [   ]
      If modified, have appropriate people sign off:
      Design Engineer:_____
      CAD Engineer:_____
      Comment/Action:_____

4.0 XOR - required on partial revisions.   **Run Date:** _____

4.1   Was XOR run on old and new gin files?   Y [   ] N [   ] n/a [✓]
      Run "listdrc" on the <jobname>.sum file and include printout.

5.0 Assembly Check

5.1   Were the guidelines contained in ADI-0017 (Assembly Design Rules) followed during design   Y [✓] N [   ] n/a [   ]
      and layout?
      Note: If the answer is no, please contact Assembly Engineering to arrange a design review.
      Comment/Action:_____

5.2   Was ADI Bond used to optimize bond pad placement?   Y [·] N [✓] n/a [   ]
      Comment/Action:_____

6.0 Archive Prep

6.1   Was archive tar file created?
                                                                                    Y [   ] N [   ] n/a [_]

Design/Layout is responsible for creating a compressed tar file of the design database
for archiving. The tar file should include:

- All Cadence libraries referenced by the design (Excluding CADLIB supplied process libraries
  and standard cell libraries)
- All TC schematics used for simulation and verification.
- Verilog/Synopsis files.
- Verification directories, these are normally located in your project directory.

There is a skill routine "Create Archive Script" available to help create an archive tar
file. The skill routine will write a unix script that will create a compressed tar file when
run by the user.

7.0 Signature Approval

Assembly Engineer: _____   Date:_____
Layout Engineer: _____   Date:_____
Design Engineer: _____   Date:_____
Design Manager: _____   Date:_____
CAD Engineer: _____Doug K Weil_____   Date: _5/14/02_
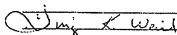
DM-6003 REV. B PAGE 3 of 3

ANALOG DEVICES

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24355	

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Foundry: TSMC

| ECN	Device Name	Manufacturing
Date: 04/30/2002 Originator: Sandra Ireland Number: TOD 1378	Foundry: TMG285 Rev: A ADI: AD9887A Rev: -	Process: 0.35C2P3M33.00 FAB: FABWT(Wafertech)

Please review the following information. If you need to make modifications use the "Back" button to return to the previous page. Otherwise, press the "Complete Die Finish" button located at the bottom of the screen.

Database	CADLIB or the Techfile path/name:	L40DPTM
	Primary Cell Name:	9887a
	Primary Cell Coord. (um):	XLL = -2780 YLL = -2565 XUR = 2780 YUR = 2565
	Scribe:	~~110/160~~ 80x80

DRC Status:	Violations With CAD Sign-off
Are you using 3rd party IP/Libraries on this product?	No
Is the metal and poly density satisfied?	Yes
Are metal fuses being used?	No
Seal-Ring Status:	Seal-Ring Complete Complete-ADI Seal-Ring: (Spec/Rev:) L40DPTM
Mask Procurement Engineer:	Mohamed Mohamedi
Comments	

Chip Size (with Seal Ring)		Stepping Pitch	
X(um):	5560.	X(um):	5670.
Y(um):	5130.	Y(um):	5290.

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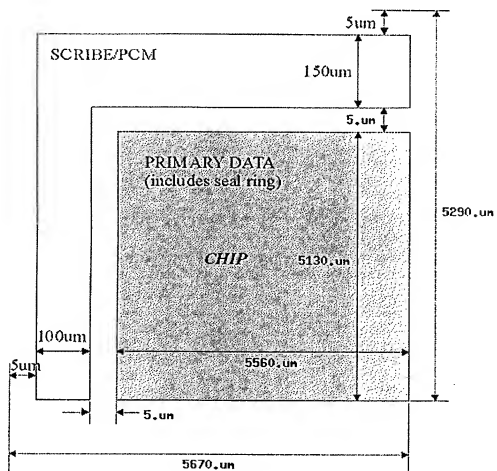
| Go Back | Submit Die Finish | Save and Quit | Return ECN |

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Projects/ad9887A/vanhoy/autoroute

HDCP_TMDS18 used in the 9887A

Projects/ad 9887A/sreed/Auto route

eco3 control Logic Top used in the 9887A

~~Autorou~~

Autoroute notes craftsman

Projects/ad 9887A/Vanhoy

140_dptm_44. rules

9887.do
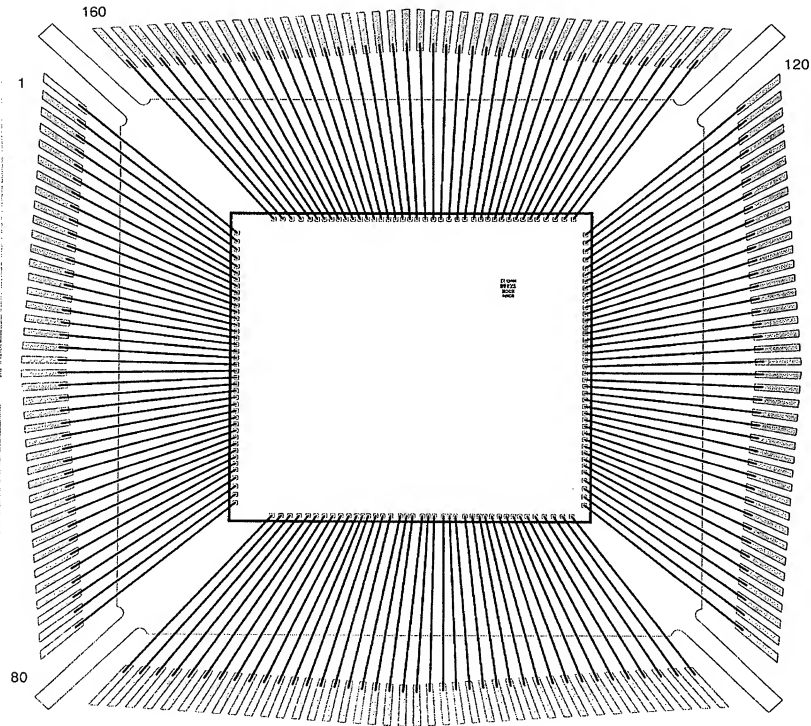
Exhibit 5
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Assembly Location: STATS	160L MQFP 28x28	
	"NULL"	

160

120

1

80

All information in this diagram is proprietary to ANALOG DEVICES INC.
and is subject to non-disclosure agreements.

ADIBOND Ver: 5.1

ling Diagram #		Die ID	Product	Pin to bond list	Scale	CODE IDENT NO.	Bond Pad Metal Composition
		AD9887A	AD9887A	Pin 1	15x	24355	98.5%Al, 1%Si, 0.5%Cu
ANALOG DEVICES	Revision Number	Min. Passivation Opening		Die Size		Paddle Size	Foundry Number
		70 x 70µm 2.8 x 2.8 mils		5640 x 5210µm 222.0 x 205.1 mils		9000 x 9000µm 354 x 354 mils	PKG000701

Exhibit 5
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| Assembly Location: STATS | 160L MQFP 28x28 | |
| | "NULL" | |

BOND WIRE STATISTICS
========================

Product (Generic) Number(s): AD9887A

Die ID: AD9887A

Package ID: 160MQFP701

Wire Type: Gold   Package Capability: SBGA,PBGA,LQFP,MQFP

Wire Diameter: 30(1.18)   Max Allowed Wire Length: 4570(179.92)

Longest Wire: 3479(137.0)   Shortest Wire: 2707(106.6)

* ADI-0017 violations are listed.   Measurements take the form: microns (mils).

BOND PAD STATISTICS
========================

All measurments in microns.

Min. Passivation Opening: 70x70   Min Pad Pitch: 90

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and is subject to non-disclosure agreements.

| | | | | | ADIBOND Ver: | 5.1 |

ting Diagram #	Die ID	Product	Pin to bond first	Scale	CODE IDENT NO.	Bond Pad Metal Composition
	AD9887A	AD9887A	Pin 1	15x	24355	98.5%Al, 1%Si, 0.5%Cu
ANALOG DEVICES	Revision Number	Min. Passivation Opening	Die Size	Paddle Size		Foundry Number
		70 x 70µm 2.8 x 2.8 mils	5640 x 5210µm 222.0 x 205.1 mils	9000 x 9000µm 354 x 354 mils		PKG000701

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| Assembly Location: STATS | 160L MQFP 28x28 | |
| | "NULL" | |

Products Covered by this Document: AD9887A

COORDINATES OF BOND PAD CENTERS
===================================

1	-2705,2255	2	-2705,2115	3	-2705,1975	4	-2705,1835
5	-2705,1695	6	-2705,1585	7	-2705,1475	8	-2705,1365
9	-2705,1255	10	-2705,1145	11	-2705,1035	12	-2705,925
13	-2705,815	14	-2705,705	15	-2705,595	16	-2705,485
17	-2705,375	18	-2705,265	19	-2705,155	20	-2705,45
21	-2705,-65	22	-2705,-175	23	-2705,-285	24	-2705,-395
25	-2705,-505	26	-2705,-615	27	-2705,-725	28	-2705,-835
29	-2705,-945	30	-2705,-1055	31	-2705,-1165	32	-2705,-1275
33	-2705,-1385	34	-2705,-1495	35	-2705,-1605	36	-2705,-1715
37	-2705,-1855	38	-2705,-1995	39	-2705,-2135	40	-2705,-2275
41	-2145,-2490	42	-2005,-2490	43	-1865,-2490	44	-1725,-2490
45	-1585,-2490	46	-1460,-2490	47	-1335,-2490	48	-1210,-2490
49	-1085,-2490	50	-960,-2490	51	-840,-2490	52	-750,-2490
53	-660,-2490	54	-545,-2490	55	-435,-2490	56	-315,-2490
57	-165,-2490	58	-70,-2490	59	25,-2490	60	175,-2490
61	270,-2490	62	365,-2490	63	515,-2490	64	610,-2490
65	705,-2490	66	855,-2490	67	970,-2490	68	1080,-2490
69	1170,-2490	70	1275,-2490	71	1395,-2490	72	1505,-2490
73	1615,-2490	74	1715,-2490	75	1830,-2490	76	1955,-2490
77	2095,-2490	78	2235,-2490	79	2375,-2490	80	2515,-2490
81	2705,-2300	82	2705,-2160	83	2705,-2020	84	2705,-1880
85	2705,-1740	86	2705,-1630	87	2705,-1520	88	2705,-1410
89	2705,-1300	90	2705,-1190	91	2705,-1080	92	2705,-970
93	2705,-860	94	2705,-750	95	2705,-640	96	2705,-530
97	2705,-420	98	2705,-310	99	2705,-200	100	2705,-90
101	2705,20	102	2705,130	103	2705,240	104	2705,350
105	2705,460	106	2705,570	107	2705,680	108	2705,790
109	2705,900	110	2705,1010	111	2705,1120	112	2705,1230
113	2705,1340	114	2705,1450	115	2705,1560	116	2705,1670
117	2705,1810	118	2705,1950	119	2705,2090	120	2705,2230
121	2520,2490	122	2380,2490	123	2240,2490	124	2100,2490
125	1960,2490	126	1850,2490	127	1740,2490	128	1630,2490
129	1520,2490	130	1405,2490	131	1295,2490	132	1185,2490
133	1075,2490	134	965,2490	135	825,2490	136	705,2490
137	575,2490	138	445,2490	139	325,2490	140	195,2490
141	65,2490	142	-45,2490	143	-155,2490	144	-265,2490
145	-375,2490	146	-485,2490	147	-595,2490	148	-705,2490
149	-815,2490	150	-925,2490	151	-1035,2490	152	-1145,2490
153	-1255,2490	154	-1365,2490	155	-1475,2490	156	-1585,2490
157	-1725,2490	158	-1865,2490	159	-2005,2490	160	-2145,2490

ADIBOND Ver: 5.1

ʻing Diagram #	Die ID	Product	Pin to bond first	Scale	CODE IDENT NO.	Bond Pad Metal Composition
	AD9887A	AD9887A	Pin 1	15x	24355	98.5%Al, 1%Si, 0.5%Cu
ANALOG DEVICES	Revision Number	Min. Passivation Opening	Die Size		Paddle Size	Foundry Number
		70 x 70µm	5640 x 5210µm		9000 x 9000µm	PKG000701
		2.8 x 2.8 mils	222.0 x 205.1 mils		354 x 354 mils	

Exhibit 5
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```
(gremlir. net/catwoman.adseng/disk1/ftp> cd inbox
(gremlin)/net/catwoman.adseng/disk1/ftp/inbox> ls -l 9*
-rw-r--r--    1 7204      19970312 May 14 13:18 9887a.gin
(gremlin)/net/catwoman.adseng/disk1/ftp/inbox> !!
ls -l 9*
-rw-r--r--    1 7204      46214560 May 14 13:21 9887a.gin
(gremlin)/net/catwoman.adseng/disk1/ftp/inbox> !!
ls -l 9*
-rw-r--r--    1 7204      62825016 May 14 13:23 9887a.gin
(gremlin)/net/catwoman.adseng/disk1/ftp/inbox> !!
ls -l 9*
-rw-r--r--    1 7204      70236424 May 14 13:23 9887a.gin
(gremlin)/net/catwoman.adseng/disk1/ftp/inbox> !!
ls -l 9*
-rw-r--r--    1 7204      70568808 May 14 13:24 9887a.gin
(gremlin)/net/catwoman.adseng/disk1/ftp/inbox> !!
ls -l 9*
-rw-r--r--    1 7204      74442752 May 14 13:24 9887a.gin
(gremlin)/net/catwoman.adseng/disk1/ftp/inbox>
```

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```
(gremlir.,projects/ad9887A/vanhoy/draclvs> ftp catwuman.adseng
Connected to catwoman.adseng.analog.com.
220 catwoman FTP server (SunOS 5.8) ready.
Name (catwoman.adseng:vanhoy): anonymous
331 Guest login ok, send ident as password.
Password:
230 Guest login ok, access restrictions apply.
ftp> cd inbox
250 CWD command successful.
ftp> binary
200 Type set to I.
ftp> put 9887a.gin
200 PORT command successful.
150 Binary data connection for 9887a.gin (137.71.50.129,60716).
226 Transfer complete.
local: 9887a.gin remote: 9887a.gin
7442752 bytes sent in 4.6e+02 seconds (157.66 Kbytes/s)
ftp>
```

```
'/A*    DRACULA ( REV / 4.7.03-2000 )  SUN-4 SSR4   /GENERATE: 29-FEB/2000 )
'/N*    EXEC TIME = .10.44 , ( Copyright ) 1995  Cadence
        /GENERATE DATE: 14-MAY-2002   HOSTNAME = .Xkr

INDI5X PRIMARY CELL : 9887A


********* LVSNET SUMMARY REPORT *********

NFPECT VALUE = 0.0000000


********* STATISTICS *********

********* REDUCE (LAYOUT) SUMMARY REPORT *********

OPTION TO EXTRACT SUBSTRATE NODES OR GATES IS -- OFF
OPTION TO FORM CNOS CNOS GATES IS -- ON
OPTION TO SMASH PSEUDO PARALLEL DEVICES IS -- ON
OPTION TO CONSTRUCT NOS PARALLEL/SERIES STRUCTURES IS -- ON
OPTION TO SMASH PARALLEL DEVICES IS -- ON


        MOS      BJT      RES     DIODE     CAP      UND      BOX     CELL     LDD
     292450      195      961      163       663       0        0       0       0


********* STATISTICS BEFORE REDUCE *********

        MOS      BJT      RES     DIODE     CAP      UND      BOX     CELL     LDD
     269573      191      807      115       264       0        0       0       0


********* REDUCE (SCHEMATIC) SUMMARY REPORT *********

********* STATISTICS AFTER REDUCE ****
     MOS      BJT     RES      INV     DIODE     CAP      SDMI     PDMI     STPI
   58800      168     706     56627      96       223       63       0       58
     183      165     128      387      131       513      2521     384    111199
    1929      165     UND       0       LDD        0      SMID     PHID   MOSCAP
    NOR       OAI      0                                             0      186
    1929      1925
    DRAM       0
       0      SRAM
               0


********* STATISTICS AFTER REDUCE ****
     MOS      BJT     RES      INV     DIODE     CAP      SDMI     PDMI     STPI
   58800      168     706     56627      96       223       63       0       58
     183      165     128      387      131       513      2521     384    111199
    1929      165     UND       0       LDD        0      SMID     PHID   MOSCAP
    NOR       OAI      0                                             0      186
    1929      1925
    DRAM       0
       0      SRAM
               0
```

```
********* LVS REPORT *********

DATE : 14-MAY-2002
TIME : 11:12:44

********************************************
PRINTLINE                =     1000
NPERCENT(MOS)            =     1.000 %
NPERCENT(NOS)            =     1.000 %
BJT EMITTER AREA CHECK: EVAREA=     5.000 %
CAPACITOR VALUE CHECK:  CVPER=     5.000 %
RESISTOR WIDTH CHECK:   RESWPR=     2.000 %
RESISTOR LENGTH CHECK:  RESLPR=     2.000 %
DIODE AREA CHECK:       DAREA=     5.000 %
UNSPECIFIED SCHEMATICAL PARAMETERS ARE CONSIDERED AS MISMATCH
UNSPECIFIED LAYOUT PARAMETERS ARE CONSIDERED AS MISMATCH
********* CORRESPONDENCE NODE PAIRS *********
********************************************

    SCHEMATICS                 LAYOUT              PAD TYPE

     AGND           67         AGND           1       G
     AGND           69         AGND           679      G
     AVDD           70         AVDD           81       I
     AVDD           71         AVDD           14       G
     DGND           72         DGND           13       G
     DGND           73         DGND           3        G
     OVDD           74         OVDD           11       G
     OVDD           75         OVDD           27       G
     PGND           76         PGND           28       G
     PGND           77         PGND           P
     SUBGND                    SUBGND         P
     green_out_b<0>  32        green_out_b<0>  12637     I
     green_out_a<6>  18        green_out_a<6>  16151     I
     green_out_b<7>  19        green_out_b<7>  16624     I
     green_out_a<5>  20        green_out_a<5>  16094     I
     green_out_b<6>  21        green_out_b<6>  16015     I
     green_out_a<3>  22        green_out_a<3>  15915     I
     green_out_a<4>  23        green_out_a<4>  15913     I
     green_out_b<5>  24        green_out_b<5>  15709     I
     green_out_a<2>  25        green_out_a<2>  15700     I
     green_out_b<4>  10        green_out_b<4>  15196     I
     blue_out_b<7>   9         blue_out_b<7>   3932      I
     blue_out_b<6>   8         blue_out_b<6>   2841      I
     blue_out_b<5>  11         blue_out_b<5>  17186     I
     blue_out_a<5>  12         blue_out_a<5>   696       I
     blue_out_a<7>  13         blue_out_a<7>   625       I
     blue_out_a<3>  14         blue_out_a<3>   624       I
     blue_out_b<3>  15         blue_out_b<3>   461       I
     blue_out_b<1>  16         blue_out_b<1>   441       I
     blue_out_a<6>  17         blue_out_a<6>   67        I
     blue_out_b<0>   1         blue_out_b<0>  12319      I
     blue_out_a<4>   2         blue_out_a<4>  12139      O
     blue_out_a<6>   3         blue_out_a<6>  12265      I
     blue_out_a<4>   4         blue_out_a<4>  11149      I
```

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```
green_out_b<2>      30   green_out_b<2>      12703  I
green_out_b<3>       5   green_out_b<3>     100163  I
blue_out_a<2>        6   blue_out_a<2>        9113  I
blue_out_a<1>        7   blue_out_a<1>        8188  I
blue_out_a<0>        8   blue_out_a<0>        7411  I
green_out_b<5>      28   green_out_b<5>      12725  I
green_out_b<4>      27   green_out_b<4>      13006  I
green_out_b<6>      26   green_out_b<6>      13840  I
green_out_b<7>      25   green_out_b<7>      14559  I
pad_A1              84   pad_A1              16176  I
pad_A0              83   pad_A0               6123  I
green_out_a<7>      87   green_out_a<7>      16316  I
pad_Ain             82   pad_Ain              4846  I
pad_B_clampv        36   pad_B_clampv         1264  I
pad_Bnidsc          33   pad_Bnidsc          12625  I
pad_CKEXT           34   pad_CKEXT            12489  I
pad_CREXT           35   pad_CREXT             397  I
pad_CTL0            77   pad_CTL0                 8  I
pad_CTL1            78   pad_CTL1                10  I
pad_CTL2            79   pad_CTL2                 9  I
pad_CTL3_NCL       87   pad_CTL3_NCL            11  I
pad_CXinv          88   pad_CXinv             959  I
pad_Cdasc          89   pad_Cdasc             939  I
pad_DE             38   pad_DE              16329  I
pad_DVISCL         39   pad_DVISCL             26  I
pad_DVISDA         40   pad_DVISDA          15626  I
pad_E_clampv       91   pad_E_clampv        15700  I
pad_Gain           92   pad_Gain            15706  I
pad_Gnidsc         40   pad_Gnidsc          16447  I
pad_Hsync          41   pad_Hsync           16487  I
pad_JPA            42   pad_JPA             16693  I
pad_REPOUT         43   pad_REPOUT          16932  I
pad_Rain           44   pad_Rain            16324  I
pad_Relampv        94   pad_Relampv         16434  I
pad_Refiter        95   pad_Refiter         16489  I
pad_Rnidsc         96   pad_Rnidsc          16487  I
pad_Rterm          97   pad_Rterm              15  I
pad_Rxdn           98   pad_Rxdn               20  I
pad_Rxdp           99   pad_Rxdp               23  I
pad_Rxin          100   pad_Rxin               19  I
pad_Rxip          101   pad_Rxip               18  I
pad_Rxzn          102   pad_Rxzn               17  I
pad_Rxcp          103   pad_Rxcp               16  I
pad_Rxcn          104   pad_Rxcn               22  I
pad_SCANclk       24   pad_SCANclk             22  I
pad_SCANin        80   pad_SCANin          16492  I
pad_SCANout       24   pad_SCANout            22  I
pad_SCL           105   pad_SCL              7231  I
pad_SDA           106   pad_SDA              8072  I
pad_SOGIN         104   pad_SOGIN           15960  I
pad_SOGOUT         43   pad_SOGOUT          16330  I
pad_SYNCDT         46   pad_SYNCDT          16330  I
pad_VSOUT          47   pad_VSOUT           16330  I
pad_Vsync         107   pad_Vsync            857  I
pad_clamp         108   pad_clamp           8950  I
pad_dateck         48   pad_dateck          16332  I
pad_dateckb        49   pad_dateckb         16931  I
pad_hsout          50   pad_hsout           16325  I
red_out_a<0>       56   red_out_a<0>        16317  I
```

```
red_out_a<1>       57   red_out_a<1>        16318  I
red_out_a<2>       58   red_out_a<2>        16330  I
red_out_a<3>       59   red_out_a<3>        16221  I
red_out_a<4>       54   red_out_a<4>        16330  I
red_out_a<5>       55   red_out_a<5>        16322  I
red_out_b<5>       65   red_out_b<5>        16330  I
red_out_b<6>       66   red_out_b<6>        16310  I
red_out_b<7>       67   red_out_b<7>        16316  I
red_out_b<0>       60   red_out_b<0>        16336  I
red_out_b<1>       61   red_out_b<1>        16330  I
red_out_b<2>       62   red_out_b<2>        16312  I
red_out_b<3>       63   red_out_b<3>        16313  I
red_out_b<4>       64   red_out_b<4>        16314  I

**TOTAL**   108 ***

BIG SCH NODE : AGND         67   CONN =      781
BIG SCH NODE : ALGND        68   CONN =      423
BIG SCH NODE : AVDD         69   CONN =      718
BIG SCH NODE : DGND         70   CONN =      465
BIG SCH NODE : DVDD         71   CONN =      353
BIG SCH NODE                72   CONN =      133
BIG SCH NODE : AGND         73   CONN =      781
BIG SCH NODE : ALGND             CONN =      423
WARNING : UN-LABELED BIG SCH NODE =   2829 CONN =      235
WARNING : UN-LABELED BIG SCH NODE =  28289 CONN =      389
WARNING : UN-LABELED BIG SCH NODE =    110 CONN =      209
WARNING : UN-LABELED BIG SCH NODE =    247 CONN =      209
WARNING : UN-LABELED BIG SCH NODE =   8370 CONN =      297
WARNING : UN-LABELED BIG SCH NODE =    206 CONN =      298
WARNING : UN-LABELED BIG SCH NODE =    256 CONN =      305
WARNING : UN-LABELED BIG SCH NODE =  28259 CONN =      305
WARNING : UN-LABELED BIG SCH NODE =  28262 CONN =      338
WARNING : UN-LABELED BIG SCH NODE =  28286 CONN =      338
WARNING : UN-LABELED BIG SCH NODE =  28266 CONN =      206
WARNING : UN-LABELED BIG SCH NODE =  28286 CONN =      206
WARNING : UN-LABELED BIG SCH NODE =  28379 CONN =      581
WARNING : UN-LABELED BIG SCH NODE : AGND    781 CONN
WARNING : UN-LABELED BIG SCH NODE : DVDD      1 CONN =      355
WARNING : UN-LABELED BIG SCH NODE : DGND     28 CONN =      160
WARNING : UN-LABELED BIG SCH NODE : PVDD     28 CONN =      160
WARNING : UN-LABELED BIG SCH NODE =     48 CONN =      209
WARNING : UN-LABELED BIG SCH NODE =     53 CONN =      290
WARNING : UN-LABELED BIG LAY NODE =     99 CORN =      423
WARNING : UN-LABELED BIG LAY NODE : ALGND   236 CORN =   2657
WARNING : UN-LABELED BIG LAY NODE : AVDD    505 CORN =    235
WARNING : UN-LABELED BIG LAY NODE =    176 CORN =    389
WARNING : UN-LABELED BIG LAY NODE =   1613 CORN =    338
WARNING : UN-LABELED BIG LAY NODE =   1616 CORN =    318
WARNING : UN-LABELED BIG LAY NODE =   7387 CORN =    338
WARNING : UN-LABELED BIG LAY NODE =   7566 CORN =    298
WARNING : UN-LABELED BIG LAY NODE =   7706 CORN =    206
WARNING : UN-LABELED BIG LAY NODE =   8031 CORN =    206
WARNING : UN-LABELED BIG LAY NODE =   8396 CORN =    581

NUMBER OF VALID CORRESPONDENCE NODE PAIRS =   97
```

```
:::::::::::::::::::::::::::::::::::::::::::::::::
::::          LVS DEVICE MATCH SUMMARY       ::::
:::::::::::::::::::::::::::::::::::::::::::::::::
```

```
NUMBER OF UN-MATCHED SCHEMATICS DEVICES    =       0
NUMBER OF UN-MATCHED LAYOUT DEVICES        =     349
NUMBER OF MATCHED SCHEMATICS DEVICES       =  136392
NUMBER OF MATCHED LAYOUT DEVICES           =  136592
```

```
::::::::::::::::  DISCREPANCY POINTS  LISTING  ::::::::::::::::
```

NO DISCREPANCIES

```
::::::::::::::::  DEVICE MATCHING SUMMARY BY TYPE  ::::::::::::::::
```

TYPE	SUB-TYPE	TOTAL DEVICE SCH.	TOTAL DEVICE LAY.	UN-MATCHED DEVICE SCH.	UN-MATCHED DEVICE LAY.
MOS	P	122678	122679	0	1
MOS	N	123205	123205	0	0
BJT	SP	168	168	0	0
RES	P	247	247	0	0
RES	M	403	403	0	0
RES	X3	6	6	0	0
RES	XN	12	12	0	0
RES	P1	4	4	0	0
RES	B1	24	24	0	0
DIO	ND	96	96	0	0
CAP	N	32	32	0	0
CAP	PW	21	21	0	0
CAP	PS	170	518	0	0

```
:::::::::  UN-MATCHED LAYOUT DEVICES    348
          (LIST UP TO 100)
```

```
: ?DEV109742 MOS P
:   X=1209.28    Y=-475.68
:   79370, 775582, 775583
: ?DEV94
:   X=-105.55 CAP PS    L = 5.00
:   79437, 79439
```

```
?DEV3004    CAP  PS
  X=-41.10     Y=629.35
  794872.  794524
?DEV533     CAP  PS
  X=-105.60  CAP  Y=644.05
  794883.  794535
?DEV023     CAP  PS
  X=-41.10     Y=644.05
  794883.  794536
?DEV339     CAP  PS
  X=-105.60    Y=658.75
  794947.  794547
  X=-41.10     Y=658.75
  794896.  794548
?DEV358     CAP  PS
  X=-105.60    Y=673.45
  794907.  794559
?DEV161     CAP  PS
  X=-41.10     Y=673.50
  794960.  794560
?DEV189     CAP  PS
  X=-105.60    Y=688.15
  794920.  794572
  X=-41.10     Y=688.15
  794921.  794573
?DEV391     CAP  PS
  X=-105.60    Y=688.15
  794922.  794574
?DEV392     CAP  PS
  X=-41.10     Y=1382.80
  794575.  688.15
?DEV453     CAP  PS
  X=-101.33    Y=1382.80
  794969.  794621
  X=-81.83     Y=1382.80
  794970.  794622
?DEV455     CAP  PS
  X=-36.83     Y=1382.80
  794971.  794623
?DEV456     CAP  PS
  X=-36.83     Y=1197.50
  794972.  794624
?DEV479     CAP  PS
  X=-103.33    Y=1197.50
  794987.  794639
?DEV495     CAP  PS
  X=-38.83     794640  Y=1197.50
  794988.  794651 Y=1412.20
?DEV499     PS
  X=-38.83     CAP PS
  794999.  Y=1412.20
?DEV514     CAP  PS
  X=-105.00    Y=1426.90
  795000.  794652
?DEV514     CAP  PS
  795011.  79663
```

```
?DEV513     CAP  PS
  X=-38.83     Y=126.90
  795517.  79466
?DEV533     CAP  PS
  X=-103.33    Y=141.60
  795023.  794675
  X=-338.83    CAP  PS
  795024.  794676  Y=1401.65
?DEV566     CAP  PS
  X=-103.33    Y=1456.30
  795101.  794688
?DEV565     CAP  PS
  X=-81.83     Y=1456.30
  795107.  79689
?DEV566     CAP  PS
  X=-60.33     Y=1456.30
  795038.  794690
?DEV56      CAP  PS
  X=-38.83     Y=1456.30
  795039.  794699
?DEV62      CAP  PS
  X=-427.75    Y=-162.20
  794639.  794371
?DEV63      CAP  PS
  X=-427.75    Y=-162.20
  794712.  794386
?DEV82      CAP  PS
  X=-406.25    794387
  794713.  794385
?DEV82      CAP  PS
  X=-384.95    Y=-148.10
  794714.  794388
?DEV104     CAP  PS
  X=-406.35    Y=-148.10
  795937.  794393
  X=-384.95    Y=-133.60
  795935.  794405
?DEV123     CAP  PS
  X=-406.95    Y=-133.60
  795936.  794938
?DEV105     CAP  PS
  X=-384.95    Y=-133.60
  794765.  794417
?DEV123     CAP  PS
  X=-427.75    Y=-118.70
  794766.  794418
?DEV142     CAP  PS
  X=-427.75    Y=-104.00
  794427.  794429
  X=-384.95    Y=-104.00
  ?DEV144     CAP  PS
  X=-427.95    Y=-89.30
  794178.  794430
  X=-427.75    CAP  PS
  794789.  794441
```

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```
?DEV163    CAP PS
X=-385.95 Y=-89.30
794790. 794422
?DEV152    CAP PS
X=-427.75 Y=-74.60
794801. 794453
?DEV193    CAP PS
794806.35 Y=-74.60
794802. 794454
?DEV194    CAP PS
X=-384.95 Y=-74.60
794801. 794455
?DEV331    CAP PS
X=-427.75 Y=-74.60
?DEV232    CAP PS
X=-427.80 Y=-59.90
794820. 794472
?DEV233    CAP PS
X=-384.35 Y=-59.90
794421. 794473
?DEV257    CAP PS
X=-406.40 Y=-59.95
794835. 794487
?DEV258    CAP PS
794836.40 794488 Y=599.95
?DEV275    CAP PS
X=-427.80 Y=599.95
794835. 794489
?DEV350    CAP PS
794481. Y=614.65
?DEV302    CAP PS
794835. 794502 Y=614.65
?DEV276    CAP PS
X=-406.40 Y=614.65
794481.
?DEV285    CAP PS
794852. 794503 Y=614.65
?DEV298    CAP PS
794852.00 794504 Y=611.65
?DEV013    CAP PS
X=-427.80 Y=629.35
794869. 794521
?DEV000    CAP PS
794869. 794522 Y=629.35
?DEV317    CAP PS
794870. 794514 Y=644.05
?DEV336    CAP PS
X=-385.00 Y=644.05
794882. 794533
?DEV033    CAP PS
X=-427.80 Y=644.05
794881. 794545
?DEV035    CAP PS
794894. Y=659.75
?DEV355    CAP PS
794892. 794546 Y=658.75
?DEV033    CAP PS
794893.80 794557 Y=673.45
```

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```
?DEV357    CAP PS
X=-385.00 Y=673.45
794906. 794558
?DEV368    CAP PS
X=-427.80 Y=688.15
794917. 794569
?DEV367    CAP PS
794916.40 794570 Y=688.15
?DEV388    CAP PS
X=-385.00 Y=688.15
794915. 794571
?DEV387    CAP PS
X=-406.40 Y=702.85
794936. 794589
?DEV406    CAP PS
X=-427.80 Y=702.85
794937. 794589
?DEV407    CAP PS
794951. 794600 Y=368.10
?DEV431    CAP PS
794952. 794604 Y=368.10
?DEV412    CAP PS
X=-385.00 Y=1368.10
794953. 794605
?DEV450    CAP PS
X=-425.53 Y=1382.80
794966. 794618
?DEV430    CAP PS
794965. 794619 Y=1382.80
?DEV434    CAP PS
X=-404.13 Y=1382.80
794967. 794619
?DEV473    CAP PS
794968. 794620 Y=1382.80
?DEV471    CAP PS
X=-425.53 Y=1397.50
794986. 794638
?DEV475    CAP PS
X=-382.73 Y=1397.50
794996. 794649
?DEV450    CAP PS
X=-425.53 Y=1412.20
794997. 794649
?DEV494    CAP PS
794996. 794650 Y=1412.20
?DEV511    CAP PS
X=-425.53 Y=1426.90
795009. 794661
```

THE REST OF UN-MATCHED LAYOUT DEVICES ARE NOT LISTED

X887apnlvs.lvs

```
************************************************
*                                              *
*            LVS SUMMARY (REPEATED)            *
*                                              *
************************************************

************************************************
*                                              *
*          LVS DEVICE MATCH SUMMARY            *
*                                              *
************************************************

NUMBER OF UN-MATCHED SCHEMATICS DEVICES   =        0
NUMBER OF UN-MATCHED LAYOUT DEVICES       =      349
NUMBER OF MATCHED SCHEMATICS DEVICES      =   136592
NUMBER OF MATCHED LAYOUT DEVICES          =   136392

************************************************
*                                              *
*     DEVICE MATCHING SUMMARY BY TYPE          *
*                                              *
************************************************
```

TYPE	SUB-TYPE	TOTAL DEVICE		UN-MATCHED DEVICE	
		SCH.	LAY.	SCH.	LAY.
MOS	P	122678	122679	0	1
MOS	N	123205	123205	0	0
BJT	SP	168	168	0	0
RES	P	247	247	0	0
RES	M1	1	1	0	0
RES	N	403	403	0	0
RES	NN	9	9	0	0
RES	M3	6	6	0	0
RES	P1	12	12	0	0
RES	P2	4	4	0	0
RES	BL	96	96	0	0
DIO	ND	24	24	0	0
CAP	N	21	21	0	0
CAP	P	32	32	0	0
CAP	PS	170	518	0	348

```
************************************************
*                                              *
*  "/W" -- SCHEMATIC AND LAYOUT MAY NOT MATCH  *
*          CHECK ALL ABOVE DISCREPANCY         *
*          AND WARNING MESSAGES                *
*                                              *
************************************************
```

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```
'/N'
'/N'

DRACULA  ( REV  4.7.03-2000 / SUN-4 SSR4  /GENDATE: 29-FEB/2000 )
         *** ( Copyright 1995, Cadence )
EXEC TIME =12:00:14        DATE =14-MAY-2002      HOSTNAME =        xkf

-----------  ALL ERROR CELLS LISTING  -----------

BEGIN   AT   TIME =12:00:14                        DATE =14-MAY-2002
```

(columns of error cell names — e.g. FPSFT35, N5ELN61, NBLLN61, NHRLDS61, LVTNS61, MVTS61, PDMBS61, PNQSN61, N3FFPS61, PDS6I, ESMNS61, ESSN3N61, CDS3IP61, E3VER361, PNFPS61, N5NFS61, M5AD061, P5VUL61, CONTP61, CDS1PS61, IOCCAS61, CONNY361, BADVV361, M2VTA61, VIA25P61, MEF31OS61, P1VZN2S61, C0P2N961, XT2PADS1, N5PSME61, RDNPPS61, C0PUE61, ND5LVS61, PSMHE61, N5AO361, NPZSSS61, N5PUM61, VTII961, PADSS61 ... etc.)
```

X887apnchkip.sum

```
INDISK PRIMARY CELL. 988TA
CELL N2SF735   DELETED BECAUSE OF NO OUTPUT DATA
CELL PARKC62   DELETED BECAUSE OF NO OUTPUT DATA
CELL GNDSC62   DELETED BECAUSE OF NO OUTPUT DATA
CELL ND0N61   DELETED BECAUSE OF NO OUTPUT DATA
CELL N5ELN61   DELETED BECAUSE OF NO OUTPUT DATA
CELL NBELN61   DELETED BECAUSE OF NO OUTPUT DATA
CELL NHELN61   DELETED BECAUSE OF NO OUTPUT DATA
CELL M5NFS61   DELETED BECAUSE OF NO OUTPUT DATA
CELL MNRFPS61   DELETED BECAUSE OF NO OUTPUT DATA
CELL NHRLDS61   DELETED BECAUSE OF NO OUTPUT DATA
CELL LVTS61   DELETED BECAUSE OF NO OUTPUT DATA
CELL LVTS61   DELETED BECAUSE OF NO OUTPUT DATA
CELL LVTS61   DELETED BECAUSE OF NO OUTPUT DATA
CELL LVTS61   DELETED BECAUSE OF NO OUTPUT DATA
CELL LVTNS61   DELETED BECAUSE OF NO OUTPUT DATA
CELL MVTS61   DELETED BECAUSE OF NO OUTPUT DATA
CELL MVTS61   DELETED BECAUSE OF NO OUTPUT DATA
CELL MVVNS61   DELETED BECAUSE OF NO OUTPUT DATA
CELL MVTNS61   DELETED BECAUSE OF NO OUTPUT DATA
CELL MTVS61   DELETED BECAUSE OF NO OUTPUT DATA
CELL MNFPS61   DELETED BECAUSE OF NO OUTPUT DATA
CELL FPS6I   DELETED BECAUSE OF NO OUTPUT DATA
CELL PPNVS61   DELETED BECAUSE OF NO OUTPUT DATA
CELL PNQSN61   DELETED BECAUSE OF NO OUTPUT DATA
CELL NPFPS61   DELETED BECAUSE OF NO OUTPUT DATA
CELL ESMNS61   DELETED BECAUSE OF NO OUTPUT DATA
CELL ESSN3N61   DELETED BECAUSE OF NO OUTPUT DATA
CELL NPOU2S61   DELETED BECAUSE OF NO OUTPUT DATA
CELL E3VER361   DELETED BECAUSE OF NO OUTPUT DATA
CELL CDS3IP61   DELETED BECAUSE OF NO OUTPUT DATA
CELL ESPOS361   DELETED BECAUSE OF NO OUTPUT DATA
CELL E3VER361   DELETED BECAUSE OF NO OUTPUT DATA
```
```

```
CELL E3VER161: DELETED BECAUSE OF NO OUTPUT DATA
CELL E3VER261: DELETED BECAUSE OF NO OUTPUT DATA
CELL E3VER361: DELETED BECAUSE OF NO OUTPUT DATA
CELL ESDEN361: DELETED BECAUSE OF NO OUTPUT DATA
CELL TPOL961: DELETED BECAUSE OF NO OUTPUT DATA
CELL ESXV461: DELETED BECAUSE OF NO OUTPUT DATA
CELL PNFPS61: DELETED BECAUSE OF NO OUTPUT DATA
CELL POENDC61: DELETED BECAUSE OF NO OUTPUT DATA
CELL POGND61: DELETED BECAUSE OF NO OUTPUT DATA
CELL POPDB61: DELETED BECAUSE OF NO OUTPUT DATA
CELL P1INW161: DELETED BECAUSE OF NO OUTPUT DATA
CELL DITOP161: DELETED BECAUSE OF NO OUTPUT DATA
CELL P1OMM161: DELETED BECAUSE OF NO OUTPUT DATA
CELL PROOM161: DELETED BECAUSE OF NO OUTPUT DATA
CELL CAPE361: DELETED BECAUSE OF NO OUTPUT DATA
CELL BMARK61: DELETED BECAUSE OF NO OUTPUT DATA
CELL PCAPBR61: DELETED BECAUSE OF NO OUTPUT DATA
CELL POLVS61: DELETED BECAUSE OF NO OUTPUT DATA
CELL NVPO961: DELETED BECAUSE OF NO OUTPUT DATA
CELL PSVNL61: DELETED BECAUSE OF NO OUTPUT DATA
CELL CONVT061: DELETED BECAUSE OF NO OUTPUT DATA
CELL BADVT61: DELETED BECAUSE OF NO OUTPUT DATA
CELL CONVT561: DELETED BECAUSE OF NO OUTPUT DATA
CELL CONVT761: DELETED BECAUSE OF NO OUTPUT DATA
CELL CONFP61: DELETED BECAUSE OF NO OUTPUT DATA
CELL CONWN61: DELETED BECAUSE OF NO OUTPUT DATA
CELL CONPB61: DELETED BECAUSE OF NO OUTPUT DATA
CELL CONVT661: DELETED BECAUSE OF NO OUTPUT DATA
CELL CONVF861: DELETED BECAUSE OF NO OUTPUT DATA
CELL B10CT61: DELETED BECAUSE OF NO OUTPUT DATA
CELL IOCT0N61: DELETED BECAUSE OF NO OUTPUT DATA
CELL COIMH161: DELETED BECAUSE OF NO OUTPUT DATA
CELL NZ71N61: DELETED BECAUSE OF NO OUTPUT DATA
CELL CONNS61: DELETED BECAUSE OF NO OUTPUT DATA
CELL MET110G1: DELETED BECAUSE OF NO OUTPUT DATA
CELL VT1AN61: DELETED BECAUSE OF NO OUTPUT DATA
CELL MET256I: DELETED BECAUSE OF NO OUTPUT DATA
CELL M2VIAG1: DELETED BECAUSE OF NO OUTPUT DATA
CELL MET21061: DELETED BECAUSE OF NO OUTPUT DATA
CELL NMET3561: DELETED BECAUSE OF NO OUTPUT DATA
```

CELL NSD1N61   DELETED BECAUSE OF NO OUTPUT DATA
CELL NSD1S61   DELETED BECAUSE OF NO OUTPUT DATA
CELL NSGA061   DELETED BECAUSE OF NO OUTPUT DATA
CELL NPFPO61   DELETED BECAUSE OF NO OUTPUT DATA
CELL NPFES61   DELETED BECAUSE OF NO OUTPUT DATA
CELL PSD1S61   DELETED BECAUSE OF NO OUTPUT DATA
CELL PSD1N61   DELETED BECAUSE OF NO OUTPUT DATA
CELL NPFPS61   DELETED BECAUSE OF NO OUTPUT DATA
CELL PNDS61   DELETED BECAUSE OF NO OUTPUT DATA
CELL GAPS61   DELETED BECAUSE OF NO OUTPUT DATA
CELL PSGA061   DELETED BECAUSE OF NO OUTPUT DATA
CELL PPINS61   DELETED BECAUSE OF NO OUTPUT DATA
CELL ERR1S1   DELETED BECAUSE OF NO OUTPUT DATA
CELL PFES61   DELETED BECAUSE OF NO OUTPUT DATA
CELL GAIN61   DELETED BECAUSE OF NO OUTPUT DATA
CELL NSD5V61   DELETED BECAUSE OF NO OUTPUT DATA
CELL O2DS1P61   DELETED BECAUSE OF NO OUTPUT DATA
CELL O2DS1Z61   DELETED BECAUSE OF NO OUTPUT DATA
CELL O2DS2P61   DELETED BECAUSE OF NO OUTPUT DATA
CELL O2NS1P61   DELETED BECAUSE OF NO OUTPUT DATA
CELL N31N61   DELETED BECAUSE OF NO OUTPUT DATA
CELL NSD3JV61   DELETED BECAUSE OF NO OUTPUT DATA
CELL NSDJV61   DELETED BECAUSE OF NO OUTPUT DATA
CELL N3ODS1   DELETED BECAUSE OF NO OUTPUT DATA
CELL GA1NE61   DELETED BECAUSE OF NO OUTPUT DATA
CELL N3PMS61   DELETED BECAUSE OF NO OUTPUT DATA
CELL ERR261   DELETED BECAUSE OF NO OUTPUT DATA
CELL N3PNS61   DELETED BECAUSE OF NO OUTPUT DATA
CELL NSD5V61   DELETED BECAUSE OF NO OUTPUT DATA
CELL NSDOS61   DELETED BECAUSE OF NO OUTPUT DATA
CELL O2NS61   DELETED BECAUSE OF NO OUTPUT DATA
CELL N31PG1   DELETED BECAUSE OF NO OUTPUT DATA
CELL N3PES61   DELETED BECAUSE OF NO OUTPUT DATA
CELL ERR61   DELETED BECAUSE OF NO OUTPUT DATA
CELL PNEU61   DELETED BECAUSE OF NO OUTPUT DATA
CELL PNEL61   DELETED BECAUSE OF NO OUTPUT DATA
CELL PNEUA61   DELETED BECAUSE OF NO OUTPUT DATA
CELL VTT1S61   DELETED BECAUSE OF NO OUTPUT DATA
CELL PFLD61   DELETED BECAUSE OF NO OUTPUT DATA
CELL PFLDS61   DELETED BECAUSE OF NO OUTPUT DATA
CELL PFPTP61   DELETED BECAUSE OF NO OUTPUT DATA
CELL PFPADO61   DELETED BECAUSE OF NO OUTPUT DATA
CELL PADS61   DELETED BECAUSE OF NO OUTPUT DATA
CELL MIFPSP61   DELETED BECAUSE OF NO OUTPUT DATA
CELL MIFPSP61   DELETED BECAUSE OF NO OUTPUT DATA
CELL X3FPSP61   DELETED BECAUSE OF NO OUTPUT DATA

------ OUTPUT CELL SUMMARY ------

CELL-NAME	LAYER # DATATYPE		WINDOW			# OF POLYGONS (LINE SEGMENTS)	TEXTS
PPSFT15	35/ 0	-1754.10	-2029.80	1830.70	1513.65	1206	0
NPSFT15	35/ 0	021.30	655.08	1266.60	758.08	8	0

OUTDISK PRIMARY CELL : OUT9887A
WINDOW : -1754.10   -2029.80   1830.70   1513.65

ENDED   AT TIME #12:00:14   DATE #14-MAY-2002

...... PROBLEM GEOMETRY ERROR LISTING ......

1

CELL: ESD_A   LAYER: 8   PRO/GEO/ACUTE   PROCESSED

CELL: ASSD_SMALL_SR_A   LAYER: 8   PRO/GEO/ACUTE   PROCESSED

CELL: ASSD_SMALL_SR   LAYER: 8   PRO/GEO/ACUTE   PROCESSED

CELL: ESD   LAYER: 8   PRO/GEO/ACUTE   PROCESSED

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```
CELL: XSD_NSR        LAYER:  8      PRO/GEO.ACUTE       PROCESSED
   70.150   171.900   73.050   171.500    74.550   170.400
   74.550   213.500   70.150   213.500    68.650   215.000
   69.000   153.000   95.250   244.000    95.250   242.000
   52.450             95.250

CELL: ESD_POWER_NIXO  LAYER:  8     PRO/GEO.ACUTE       PROCESSED
   83.900   212.500   96.600   213.550    83.900   213.550
   83.900   188.550   94.900   187.150    77.400   213.550
   79.400   187.150   94.900   171.700    77.400   171.700
   77.400   147.450   75.900   145.950    73.000   145.990
   75.900   147.450   75.900   155.950    73.000   155.990
   75.900   173.700   73.000   187.150    78.000   187.150
   78.000   196.850   79.700   196.850    78.000   188.550
   79.400   197.050   83.900   213.550    78.000   188.550
   71.800   242.275   83.900   244.650    57.075   244.650
   54.800   140.550   81.800   140.550    81.800   140.550
   79.800             81.800              81.800
   97.800   130.000   97.800   212.350   130.000   130.000

CELL: ESDOUT         LAYER:  8     PRO/GEO.ACUTE       PROCESSED
  114.000    21.600   24.400    31.800    24.400    30.000
   26.400    30.000   26.400   209.000    24.400    31.800
  109.500   219.000   26.400   109.500    84.500    84.500
   89.000   207.000   88.000    88.000    84.500    84.500
   83.000   207.000   83.000   215.500   205.500   205.500
   22.000   212.000   99.700   215.500    89.500    89.500
   -0.600     0.900   -0.600   232.400   217.000   217.000
   22.000    64.900    0.900    60.900    64.500    64.500
   23.000   41.800   64.900   130.800    45.100    45.100
           230.500    23.000    82.000    23.500    23.500
                       -0.600    82.000    21.600    21.600
                       34.800   188.000    88.000   188.000
            130.000            100.000   130.000   130.000
```

```
***** END OF PROBLEM GEOMETRY LISTING *****
     NUMBER OF ACUTE ANGLE INPUT POLYGONS =     7
***** INPUT COMMANDS LISTING *****
```

```
 1:*DESCRIPTION
 2:PRIMARY = 9887A
 3:INDISK = 9887A.gin
 4:OUTDISK = gmp2x
 5:POWER-NODE = ALVDD AVDD DVDD PVDD
 6:GROUND-NODE = AGND ALGND DGND DGND PGND SUBGND
 7:TEXT-PRI-ONLY = YES
 8:PRINTFILE = X887apnchkfp
 9:FLAGNAME = X887apnchkfp
10:FLAG-OFFGRID = YES
11:PATH-N-OFFGRID = YES
```

```
12:FLAG-PTH-OFFGRID = YES
13:FLAG-ACUTEANGLE = YES
14:ACUTEB-CLIP = NO
15:SYSTEM-CHIP = GDS2
16:RESOLUTION = .025 MIC
17:SCALE = .001 MIC
18:KEEPDATA = YES
19:FLAG-SELF-LAYERS = NO
20:SUMMARY-ONLY = NO
21:MODE = EXEC NOW
22:UNSPEC-PARA = EXCEPT-SUBSTRATE
23:KEEP-ACUTE-POS = YES
24:KEEP-SHORT-RES = NO
25:KEEP-SHORT-CAP = YES
26:CHANGES-CSEN = YES
27:SMASH-CAP-TYPE = NO
28:NONACC-SEL-RING = NO
29:MODEL = XOSIN[.N XOSIN[P].P LCDIXL].XL
30:MODEL = BJT[SP].SP
31:MODEL = CAP[N].N
32:MODEL = RES[P].P RES[N].N C1P[FH].FH
33:MODEL = RES[N1].N1 RES[N2].N2 RES[P2].P2 RES[B2].B2
34:MODEL = RES[P].P RES[N].N RES[B1].B1 RES[B3].B3
35:MODEL = DIO[ND].ND
36:MODEL = DIO[PP].PP
37:MODEL = XOS[NN].NN XOS[NM].NM
38:MODEL = RES[NN].NN
39:MODEL = RES[NM].NM
40:MODEL = RES[FU].FU
41:PARSET AREA.P PERIMETER.U
42:PARSET ANTE AREA
43:PARSET LCAP AREA PERI.C OVER.P PTR CIL
44:DIOCDSSQ = A1 P1 A2 P2
45:OUTPUT-ONE-LAYER = NO
46:*INPUT-LAYER = EXCEP-SUBSTRATE
47:MODEL = RES[NN].NN
48:MODEL = RES[NM].NM
49:TWPZ = 1
50:ESDNIV = 2
51:PPP = 5
52:RONP = 37
53:TCONT = 7
54:TMETI = 8
```

55:THEFI		TEXT = 21 ATTACH MET1		
56:VIA	9			
57:TWE2T	10	TEXT = 22 ATTACH MET2		
58:PAD	11			
59:METMARK	14			
60:VT2	15	TEXT = 24 ATTACH MET3		
61:TME3T				
62:LCQVT	6			
63:HEDVT	34			
64:VT11	38			
65:PMEL	40			
66:ESDNSV	33			
67:PMSUB	32			
68:NLCDIV	38			

```
/N*  DRACULA  ( REV  4.7.03-2000 ..... SUN-4 5586   /GENDATE: 29-FEB/2000 )
/N*  EXEC TIME =11.46.... (Cadence )  ........ HOSTNAME = xx:
```

ALL ERROR CELLS LISTING

```
NPSFP315   NPSFP315   PMRSC62    GNDSC62
NMELM61    NMELM61    NMELM61    BNNARK61
NNOSM61    NDSP61     NANPE61    NANPS61
NMELDS61   NMNINP61   LVTM61     LVTS61
LVTM61     LVTS61     NMELS61    NMELM61
NANPS61    NANPE61    NMELM61    LVTS61
NANPS61    NANPS61    NMELM61    NVTERA1
MVTS61     MVTS61     NVTERA1    NVTERA1
MXFS61     NMELM61    NMELM61    PDM61
POSP61     POSP61     PPNPSP61   NFFPSP61
NFFPSP61   NFFPSP61   PPNPSP61   MVTERA61
ESSNC56    ESSNS61    NFOUE561   NFTES61
ESSNP61    ESSNM361   ESSNM361   ESNPE261
COES3E1    ESSNM361   E3VER161   E3VER261
ESSANP61   ESSVER61   NFOUE561   NFTES61
NFFPS61    FORM861    POMNDS61   POPDE61
PLIMN161   PRIMN161   PRIMN161   PRONM161
NNNNG61    POLDEN61   BNARK61    PCAFE61
POVM561    COMPE61    COMVE61    COMPE61
CONFM61    COMPE61    COLVE61    COMVE61
COMVPS61   POGASP61   PDDISP61   B1OCM61
CCOLS61    COESS61    NETIUM61   METIM61
COMVG61    CONVS61    METIE361   VTAJ61
BADV161    VTASP61    MET2M61    MET2M61
METIUM61   MET2TM61   MET2E61    BADV1761
VTAJPP61   MET1S61    VTAJS61    MVTLA61
PRIMN61    COPFE61    PPESM61    NNPSE61
PLPS61     COP2S61    P2CPS61    P2INPI61
CCINP261   COP2S61    P2RIMN61   XTIRAD61
XCTIPP61   PVIMIS61   PVIMIS61   NISGM61
PVIMIS61   PVIMIS61   P1CVLS61   B2TEM61
RCINP261   PVIMIS61   FSNSGM61   FSNSGM61
ROPUS61    RNPNPP61   RNPNPP61   F3NSGM61
BDFUS61    BADVES61   FUFOM61    FUFOA61
COPUE61    PUTES61    NDS4S61    NDSNSM61
RONV361    RNPNPP61   RUSDM61    FUSDM61
BDFUS61    BADVES61   FUFDM61    FUFDA61
PDSMVE61   P5DMVE61   P5DNPSD61  PSTEM61
PDSNVE61   P5DMVE61   PDSNDS61   PSTER61
P2DMVE61   PDSNDS61   P2DNPSD61  NDSIM61
NDSAD61    NSDINP61   NSDIM61    NSDIM61
ER561      ER561      ER561      N3PXS61
NOTG3061   LMKPS61    NSDINP61   NSDIM61
CCOD2S61   CCOD2S61   N3PXS61    N3PXS61
NMSPD61    ER161      NSDIVM61   NSDIVM61
GAJVM61    ER161      PPNCS61    PPNCS61
VTIIS61    FFLDM61    FPLDS61    LLTM61
NOTC3061   ER361      ER161      ER461
ER561      ER561      ER861      ER961
P1AREA61   P1AREA61   P1AREA61   P1AREA61
F3NTDP61   F3SRU161   F3NTDP61   F3NTDP61
PADEM161   PADEM261   PADEM261   PADEM161
```

X887aadrc.sum

```
CELL ESNNS361   DELETED BECAUSE OF NO OUTPUT DATA
CELL ESPB3361   DELETED BECAUSE OF NO OUTPUT DATA
CELL CESB3361   DELETED BECAUSE OF NO OUTPUT DATA
CELL N2VIA61    DELETED BECAUSE OF NO OUTPUT DATA
CELL ESPO3361   DELETED BECAUSE OF NO OUTPUT DATA
CELL POPDS61    DELETED BECAUSE OF NO OUTPUT DATA
CELL P11NN161   DELETED BECAUSE OF NO OUTPUT DATA
CELL ESIVER61   DELETED BECAUSE OF NO OUTPUT DATA
CELL BOVER61    DELETED BECAUSE OF NO OUTPUT DATA
CELL E3VER361   DELETED BECAUSE OF NO OUTPUT DATA
CELL ESDER61    DELETED BECAUSE OF NO OUTPUT DATA
CELL TPOLN61    DELETED BECAUSE OF NO OUTPUT DATA
CELL PNFFS61    DELETED BECAUSE OF NO OUTPUT DATA
CELL FOBND361   DELETED BECAUSE OF NO OUTPUT DATA
CELL POUDS61    DELETED BECAUSE OF NO OUTPUT DATA
CELL ESPON61    DELETED BECAUSE OF NO OUTPUT DATA
CELL P1PCS61    DELETED BECAUSE OF NO OUTPUT DATA
CELL POPDS61    DELETED BECAUSE OF NO OUTPUT DATA
CELL CAPEN61    DELETED BECAUSE OF NO OUTPUT DATA
CELL BVARK61    DELETED BECAUSE OF NO OUTPUT DATA
CELL DICVN161   DELETED BECAUSE OF NO OUTPUT DATA
CELL MVPON61    DELETED BECAUSE OF NO OUTPUT DATA
CELL POVER61    DELETED BECAUSE OF NO OUTPUT DATA
CELL PRINN161   DELETED BECAUSE OF NO OUTPUT DATA
CELL PROQN61    DELETED BECAUSE OF NO OUTPUT DATA
CELL MANCN161   DELETED BECAUSE OF NO OUTPUT DATA
CELL P5VNL61    DELETED BECAUSE OF NO OUTPUT DATA
CELL NSVNL61    DELETED BECAUSE OF NO OUTPUT DATA
CELL NVPON61    DELETED BECAUSE OF NO OUTPUT DATA
CELL COMVN61    DELETED BECAUSE OF NO OUTPUT DATA
CELL CONPS61    DELETED BECAUSE OF NO OUTPUT DATA
CELL COMFS61    DELETED BECAUSE OF NO OUTPUT DATA
CELL COMPN61    DELETED BECAUSE OF NO OUTPUT DATA
CELL COVPS61    DELETED BECAUSE OF NO OUTPUT DATA
CELL COWPS61    DELETED BECAUSE OF NO OUTPUT DATA
CELL CONPS61    DELETED BECAUSE OF NO OUTPUT DATA
CELL 1OCIND61   DELETED BECAUSE OF NO OUTPUT DATA
CELL BIOCN61    DELETED BECAUSE OF NO OUTPUT DATA
CELL RCD1S961   DELETED BECAUSE OF NO OUTPUT DATA
CELL CONPS61    DELETED BECAUSE OF NO OUTPUT DATA
CELL COIND161   DELETED BECAUSE OF NO OUTPUT DATA
CELL METI1O61   DELETED BECAUSE OF NO OUTPUT DATA
CELL CONNG61    DELETED BECAUSE OF NO OUTPUT DATA
CELL METI1N61   DELETED BECAUSE OF NO OUTPUT DATA
CELL VNMC1N61   DELETED BECAUSE OF NO OUTPUT DATA
CELL VIAN961    DELETED BECAUSE OF NO OUTPUT DATA
CELL BADV161    DELETED BECAUSE OF NO OUTPUT DATA
CELL VIASP61    DELETED BECAUSE OF NO OUTPUT DATA
CELL NIVIA61    DELETED BECAUSE OF NO OUTPUT DATA
```

X887aadrc.sum

```
CELL METI0N61   DELETED BECAUSE OF NO OUTPUT DATA
CELL XST7S61    DELETED BECAUSE OF NO OUTPUT DATA
CELL N2VIA61    DELETED BECAUSE OF NO OUTPUT DATA
CELL METI1O61   DELETED BECAUSE OF NO OUTPUT DATA
CELL WMET2361   DELETED BECAUSE OF NO OUTPUT DATA
CELL VIAIN61    DELETED BECAUSE OF NO OUTPUT DATA
CELL BADV1261   DELETED BECAUSE OF NO OUTPUT DATA
CELL VIASP61    DELETED BECAUSE OF NO OUTPUT DATA
CELL NIVIA261   DELETED BECAUSE OF NO OUTPUT DATA
CELL METI3N61   DELETED BECAUSE OF NO OUTPUT DATA
CELL P2RSN61    DELETED BECAUSE OF NO OUTPUT DATA
CELL P2RSS6     DELETED BECAUSE OF NO OUTPUT DATA
CELL P2ACS61    DELETED BECAUSE OF NO OUTPUT DATA
CELL P1P2S61    DELETED BECAUSE OF NO OUTPUT DATA
CELL COPF261    DELETED BECAUSE OF NO OUTPUT DATA
CELL P2CP561    DELETED BECAUSE OF NO OUTPUT DATA
CELL P2CP561    DELETED BECAUSE OF NO OUTPUT DATA
CELL PIINP161   DELETED BECAUSE OF NO OUTPUT DATA
CELL COIND261   DELETED BECAUSE OF NO OUTPUT DATA
CELL CONPS61    DELETED BECAUSE OF NO OUTPUT DATA
CELL P2RIN61    DELETED BECAUSE OF NO OUTPUT DATA
CELL P2RON61    DELETED BECAUSE OF NO OUTPUT DATA
CELL XT1AD61    DELETED BECAUSE OF NO OUTPUT DATA
CELL XT1AD61    DELETED BECAUSE OF NO OUTPUT DATA
CELL PVIN1161   DELETED BECAUSE OF NO OUTPUT DATA
CELL PVIM1261   DELETED BECAUSE OF NO OUTPUT DATA
CELL PVIM1261   DELETED BECAUSE OF NO OUTPUT DATA
CELL PV2S1261   DELETED BECAUSE OF NO OUTPUT DATA
CELL PADV2S61   DELETED BECAUSE OF NO OUTPUT DATA
CELL PV1V261    DELETED BECAUSE OF NO OUTPUT DATA
CELL RONPS61    DELETED BECAUSE OF NO OUTPUT DATA
CELL RONPF61    DELETED BECAUSE OF NO OUTPUT DATA
CELL NPRON61    DELETED BECAUSE OF NO OUTPUT DATA
CELL FSHCM61    DELETED BECAUSE OF NO OUTPUT DATA
CELL BFUS61     DELETED BECAUSE OF NO OUTPUT DATA
CELL BADV161    DELETED BECAUSE OF NO OUTPUT DATA
CELL FUPON61    DELETED BECAUSE OF NO OUTPUT DATA
CELL FUPOA61    DELETED BECAUSE OF NO OUTPUT DATA
CELL COPUI61    DELETED BECAUSE OF NO OUTPUT DATA
CELL PCTN61     DELETED BECAUSE OF NO OUTPUT DATA
CELL NDSSP61    DELETED BECAUSE OF NO OUTPUT DATA
CELL NDSSP61    DELETED BECAUSE OF NO OUTPUT DATA
CELL NDSNDV61   DELETED BECAUSE OF NO OUTPUT DATA
CELL NDSJDS61   DELETED BECAUSE OF NO OUTPUT DATA
CELL NDSNV61    DELETED BECAUSE OF NO OUTPUT DATA
CELL PDSDV61    DELETED BECAUSE OF NO OUTPUT DATA
CELL PDSNV61    DELETED BECAUSE OF NO OUTPUT DATA
CELL PDSNS61    DELETED BECAUSE OF NO OUTPUT DATA
CELL P9SNDS61   DELETED BECAUSE OF NO OUTPUT DATA
```

Exhibit 5
Serial No. 10/717,394
page 22 of 46

```
CELL P0SF0S61  DELETED BECAUSE OF NO OUTPUT DATA
CELL P0SF0S61  DELETED BECAUSE OF NO OUTPUT DATA
CELL P0SW6S61  DELETED BECAUSE OF NO OUTPUT DATA
CELL GANFE61   DELETED BECAUSE OF NO OUTPUT DATA
CELL NPPDS61   DELETED BECAUSE OF NO OUTPUT DATA
CELL P0DIS61   DELETED BECAUSE OF NO OUTPUT DATA
CELL NSDAO61   DELETED BECAUSE OF NO OUTPUT DATA
CELL N0DIS61   DELETED BECAUSE OF NO OUTPUT DATA
CELL NPIPO61   DELETED BECAUSE OF NO OUTPUT DATA
CELL NPPIS61   DELETED BECAUSE OF NO OUTPUT DATA
CELL NSDAO61   DELETED BECAUSE OF NO OUTPUT DATA
CELL NPESS61   DELETED BECAUSE OF NO OUTPUT DATA
CELL GAPTS61   DELETED BECAUSE OF NO OUTPUT DATA
CELL PMCS61    DELETED BECAUSE OF NO OUTPUT DATA
CELL PSDAO61   DELETED BECAUSE OF NO OUTPUT DATA
CELL PPIPO61   DELETED BECAUSE OF NO OUTPUT DATA
CELL PSDIS61   DELETED BECAUSE OF NO OUTPUT DATA
CELL PMNS61    DELETED BECAUSE OF NO OUTPUT DATA
CELL ER161     DELETED BECAUSE OF NO OUTPUT DATA
CELL GAPNE61   DELETED BECAUSE OF NO OUTPUT DATA
CELL PPESS61   DELETED BECAUSE OF NO OUTPUT DATA
CELL PAWF61    DELETED BECAUSE OF NO OUTPUT DATA
CELL C0DI2S61  DELETED BECAUSE OF NO OUTPUT DATA
CELL C0SF61    DELETED BECAUSE OF NO OUTPUT DATA
CELL C0O02S61  DELETED BECAUSE OF NO OUTPUT DATA
CELL NSDIVW61  DELETED BECAUSE OF NO OUTPUT DATA
CELL NSDIVW61  DELETED BECAUSE OF NO OUTPUT DATA
CELL N0DS61    DELETED BECAUSE OF NO OUTPUT DATA
CELL GA3IW2S61 DELETED BECAUSE OF NO OUTPUT DATA
CELL N3IPO61   DELETED BECAUSE OF NO OUTPUT DATA
CELL N3PSS61   DELETED BECAUSE OF NO OUTPUT DATA
CELL ER361     DELETED BECAUSE OF NO OUTPUT DATA
CELL EXR61     DELETED BECAUSE OF NO OUTPUT DATA
CELL NSDIVW61  DELETED BECAUSE OF NO OUTPUT DATA
CELL NSDIVW61  DELETED BECAUSE OF NO OUTPUT DATA
CELL O2NSE61   DELETED BECAUSE OF NO OUTPUT DATA
CELL N3IPO61   DELETED BECAUSE OF NO OUTPUT DATA
CELL N5PMS61   DELETED BECAUSE OF NO OUTPUT DATA
CELL ERN361    DELETED BECAUSE OF NO OUTPUT DATA
CELL PWEIM61   DELETED BECAUSE OF NO OUTPUT DATA
CELL PSEL561   DELETED BECAUSE OF NO OUTPUT DATA
CELL VTIIN61   DELETED BECAUSE OF NO OUTPUT DATA
CELL VTIIS61   DELETED BECAUSE OF NO OUTPUT DATA
CELL PFLDS61   DELETED BECAUSE OF NO OUTPUT DATA
CELL PFLDS61   DELETED BECAUSE OF NO OUTPUT DATA
CELL SLITW61   DELETED BECAUSE OF NO OUTPUT DATA
CELL NOTCW61   DELETED BECAUSE OF NO OUTPUT DATA
CELL NOTCW61   DELETED BECAUSE OF NO OUTPUT DATA
CELL ER361     DELETED BECAUSE OF NO OUTPUT DATA
CELL ER161     DELETED BECAUSE OF NO OUTPUT DATA
CELL ER261     DELETED BECAUSE OF NO OUTPUT DATA
CELL ER561     DELETED BECAUSE OF NO OUTPUT DATA
CELL ER661     DELETED BECAUSE OF NO OUTPUT DATA
CELL ER761     DELETED BECAUSE OF NO OUTPUT DATA
CELL ER861     DELETED BECAUSE OF NO OUTPUT DATA
CELL F1AREA61  DELETED BECAUSE OF NO OUTPUT DATA
CELL F1ERR161  DELETED BECAUSE OF NO OUTPUT DATA
CELL F1WID761  DELETED BECAUSE OF NO OUTPUT DATA
```

```
CELL F2AREA61  DELETED BECAUSE OF NO OUTPUT DATA
CELL F2ERR161  DELETED BECAUSE OF NO OUTPUT DATA
CELL F2WID761  DELETED BECAUSE OF NO OUTPUT DATA
CELL F3AREA61  DELETED BECAUSE OF NO OUTPUT DATA
CELL F3ERR161  DELETED BECAUSE OF NO OUTPUT DATA
CELL BD2PAD61  DELETED BECAUSE OF NO OUTPUT DATA
CELL PADBM161  DELETED BECAUSE OF NO OUTPUT DATA
CELL PADKM2A1  DELETED BECAUSE OF NO OUTPUT DATA
CELL PADBM161  DELETED BECAUSE OF NO OUTPUT DATA
CELL PADBM161  DELETED BECAUSE OF NO OUTPUT DATA
CELL PADKM561  DELETED BECAUSE OF NO OUTPUT DATA
CELL PADEM661  DELETED BECAUSE OF NO OUTPUT DATA
```

```
------------ OUTPUT CELL SUMMARY ------------

                                    W I N D O W          # OF POLYGONS TEXT
CELL-NAME  LAYER #                                         (LINE SEGMENTS)
           DATATYPE
----------------------------------------------------------------------------
PPSF35     35/ 0   -1754.30  -2029.80   1830.70   1513.65   1206    0
NPSF35     35/ 0    821.30    455.08    1260.60    758.02      8     0


  ......   ENDED   AT TIME =11:46:42      1830.70        1513.65
           WINDOW :          -1754.30  -2029.80   1830.70
                   DATE =14-MAY-2002
```

```
1                 PROBLEM GEOMETRY ERROR LISTING    ......

OUTDISK PRIMARY CELL : OUT9887A


CELL: ESD_A           LAYER: 8    PRO/GEO:ACUTE         - PROCESSED
       95.800   212.350          96.600   213.000         81.050   223.000
       81.050   198.500          79.750   187.100         76.950   208.500
       75.150   198.500          75.150   206.750         76.900   223.000
       72.550   208.500          81.050   207.000         81.050   208.500
       72.550   173.400          81.050   171.900         76.950   190.400
       70.150   173.400          68.650   171.900         68.650   190.400
       70.150   181.900          73.100   180.400         74.550   190.400
       74.550   223.500          70.150   223.500         68.650   225.000
       68.000   254.600          54.400   254.000         82.400   222.650
       52.650   163.000          95.250   163.000         73.000   213.550

CELL: AESD_SMALL_SR_A  LAYER: 8    PRO/GEO:ACUTE         - PROCESSED
       97.800   212.350          96.600   213.000         83.900   223.000
       81.050   198.500          79.750   187.100         76.950   208.500
       77.400   147.450          79.400   145.950         73.000   208.500
       77.400   147.450          75.900   145.950         73.000   223.500
       71.500   147.450          77.400   157.450         73.000   190.400
       71.500   173.700          77.450   155.950         73.000   190.400
       75.900   173.700          73.000   155.950         74.550   190.400
       78.000   173.700          79.400   173.700         82.400   222.650
       79.400   196.800          79.750   187.100         82.400   222.650
       83.900   197.050          83.900   197.050         73.000   213.550
```

CELL: AESD_SOBLL_SR | LAYER: 8 | PRO/GEO:ACUTE | PROCESSED

71.500	215.050	71.500	244.650
54.200	140.550	57.225	130.000
79.800	81.800	81.800	244.650
97.800	130.000	212.350	130.000

CELL: AESD_SOBLL_SR | LAYER: 8 | PRO/GEO:ACUTE | PROCESSED

97.800	212.350	213.550	213.550
83.900	188.550	187.050	187.050
83.900	187.450	171.700	171.700
77.400	157.450	77.400	77.400
71.500	167.450	73.500	73.500
71.500	155.950	155.950	155.950
79.400	157.450	77.400	77.400
79.400	193.400	187.150	188.550
83.900	197.350	197.350	213.550
71.500	215.050	244.650	244.650
54.800	242.225	130.000	130.000
97.800	130.000	140.550	140.550

CELL: ESD | LAYER: 8 | PRO/GEO:ACUTE | PROCESSED

95.250	212.000	213.000	213.000
81.050	188.500	187.050	187.050
75.150	188.500	196.750	198.500
79.550	197.450	197.000	213.500
74.150	161.650	161.000	166.000
74.550	73.050	79.400	79.400
70.150	171.900	171.400	170.400
52.450	213.500	212.500	215.000
66.650	244.550	244.550	242.800
52.450	151.000	133.600	242.800

CELL: AESD_NSR | LAYER: 8 | PRO/GEO:ACUTE | PROCESSED

97.800	212.350	213.050	213.050
83.900	188.550	187.050	187.050
79.400	187.150	171.700	171.700
77.400	147.450	145.950	145.950
79.550	155.950	155.950	155.950
79.400	157.450	157.400	157.400
83.900	173.700	188.550	188.550
78.000	196.850	213.550	213.550
83.900	197.350	244.650	244.650
71.500	242.275	130.000	130.000
54.800	140.550	79.800	130.000
97.800	130.000	212.350	212.350

CELL: ESD_POWER_NDIO | LAYER: 8 | PRO/GEO:ACUTE | PROCESSED

34.800	24.600	21.600	30.000
26.400	30.000	24.400	33.800
26.400	22.000	33.800	20.400
23.500	22.000	20.400	-0.600
-0.600	-0.600	-0.600	64.900
22.000	23.500	63.400	45.100
64.900	23.500	64.900	36.800
25.000	34.800	34.800	21.600

CELL: ESDOUT | LAYER: 8 | PRO/GEO:ACUTE | PROCESSED

114.000	230.500	112.550	232.000	109.500
109.500	209.000	94.700	209.000	94.700
109.500	211.000	109.500	232.000	89.500

88.500	207.000	205.500	88.000	81.500
83.900	217.000	215.500	83.900	77.100
88.000	217.000	215.500	89.500	81.500
60.600	232.000	232.000	130.000	263.400
78.800	60.900	130.000	130.000	212.000
80.900	130.000	130.800	82.000	130.000
85.900	130.000	188.500	89.000	130.800
83.900	145.050	145.050	98.000	130.000
100.000	58.000	130.000	114.000	130.000
114.000	230.500	130.000	130.000	130.000

1: DESCRIPTION
2: PRIMARY = 9887A
3: NOISY = 9887a.gin
4: OUTDISK = 9887a.you
5: POWER-NODE = ALVDD AVDD DVDD DVDD PVDD
6: GROUND-NODE = AGND ALGND DGND DGND PGND SUBGND
7: INTER-PR-ONLY = YES
8: PRINTFILE = X887aadrc
9: FLAGNON41S = YES

```
***** END OF PROBLEM GEOMETRY LISTING *****
NUMBER OF ACUTE ANGLE INPUT POLYGONS =
INPUT COMMANDS LISTING
```

1157: END

Exhibit 5
Serial No. 10/717,394
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```
'/N*   DRACULA ( REV. 4.7.03-2000 / SUN-4 SSR4  /GENDATE: 29-FEB/2000 )
'/N:   EXEC TIME = 10:4(...)  Copyright 1993, Cadence ...
'/N:                          DATE: 14-MAY-2002   HOSTNAME = firebird
```

INDISK PRIMARY CELL : 9987A

.... LVSNET SUMMARY REPORT ....

*EFFECT VALUE = 0.0000000

.... STATISTICS BEFORE REDUCE ....

MOS	BJT	RES	DIODE	CAP	UND	BOX	CELL	LDD
291615	195	961	163	663	0	0	0	0

.... REDUCE (LAYOUT) SUMMARY REPORT ....

.... STATISTICS BEFORE REDUCE ....

MOS	BJT	RES	DIODE	CAP	UND	BOX	CELL	LDD
268800	191	807	115	264	0	0	0	0

.... STATISTICS AFTER REDUCE ....

MOS	BJT	RES	INV	DIODE	CAP	SDWI	PDWI	SUPI
58629	168	706	56627	96	571	63	58	58
PUPI	SDWI	PDWI	AND	OR	AOI	NAND		
183	128	387	513	2521	384	11199		
NOR	CAI	UND	BOX	CELL	LDD	SHID	PHID	XOSCAP
165	165	0	0	0	0	2521	11199	181
DRAM	SRAM							
1929	1925	0						

.... REDUCE (SCHEMATIC) SUMMARY REPORT ....

.... STATISTICS AFTER REDUCE ....

MOS	BJT	RES	INV	DIODE	CAP	SDWI	PDWI	SUPI
58629	168	706	56627	96	571	63	58	58
PUPI	SDWI	PDWI	AND	OR	AOI	NAND		
183	128	387	513	2521	384	11199		
NOR	CAI	UND	BOX	CELL	LDD	SHID	PHID	MOSCAP
165	165	0	0	0	0	2521	11199	181
DRAM	SRAM							
1329	1925	0						

OPTION TO ERASE PARALLEL DEVICES IS -- ON
OPTION TO CONSTRUCT MOS PARALLEL/SERIES STRUCTURES IS -- ON
OPTION TO SMASH PSEUDO PARALLEL DEVICES IS -- ON
OPTION TO FORK CMOS GATES IS -- ON
OPTION TO EXTRACT SUBSTRATE NODES OR GATES IS -- OFF

.... LVS REPORT ....

DATE : 14-MAY-2002
TIME : 11:19:32

```
PRINTLINE              =  1000
%PERCENT(MOS)          =  2.000 %
LPERCENT(MOS)          =  1.000 %
BJT EMITTER AREA CHECK:  EAPER*= 5.000 %
CAPACITOR VALUE CHECK:   CVPER*= 5.000 %
RESISTOR WIDTH CHECK:    RESWPR= 2.000 %
RESISTOR LENGTH CHECK:   DAPER*= 5.000 %
DIODE AREA CHECK:        DAPER*= 5.000 %
```

UNSPECIFIED SCHEMATICAL PARAMETERS ARE CONSIDERED AS MISMATCH
UNSPECIFIED LAYOUT PARAMETERS ARE CONSIDERED AS MISMATCH

.... CORRESPONDENCE NODE PAIRS ....

SCHEMATICS	LAYOUT	PAD TYPE
AGND	67	74 G
AGND	AGND	679 G
ALVDD	69	70 G
AVDD	AVDD	82 P
DGND	70	14 G
DGND	DGND	16016 G
DVDD	AVDD	15920 P
DVDD	DVDD	15771 G
PGND	73	9 G
PGND	PGND	27 P
SUBGND	75	28 G
SUBGND	SUSGND	77	12638 P
green_out_b<0>	green_out_b<0>	12638 P
green_out_b<6>	green_out_b<6>	16152 I
ALVDD	green_out_a<5>	16128 I
AVDD	green_out_a<4>	16097 I
DGND	green_out_a<3>	16016 I
DVDD	green_out_a<2>	15920 I
PGND	green_out_a<1>	15771 I
green_out_a<7>	green_out_a<7>	15595 I
green_out_b<7>	green_out_b<7>	15595 I
blue_out_b<6>	blue_out_b<6>	3933 I
blue_out_a<6>	blue_out_a<6>	2842 I
blue_out_b<5>	blue_out_b<5>	1208 I
green_out_b<5>	green_out_b<5>	1712 I
blue_out_b<4>	blue_out_b<4>	695 I
blue_out_b<3>	blue_out_b<3>	626 I
blue_out_a<4>	blue_out_a<4>	481 I
blue_out_a<3>	blue_out_a<3>	450 I
blue_out_b<2>	blue_out_b<2>	167 I
blue_out_b<1>	blue_out_b<1>	67 G
blue_out_a<7>	blue_out_a<7>	13230 O
blue_out_b<7>	blue_out_b<7>	12286 I
blue_out_a<6>	blue_out_a<6>	12200 O
blue_out_a<5>	blue_out_a<5>	12155 I
blue_out_a<4>	blue_out_a<4>	12150 I

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Serial No. 10/717,394
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Signal	Node	Value	
green_out_b<2>	30	12704	I
blue_out_a<2>	5	10017	I
blue_out_a<3>	6	5114	I
blue_out_a<1>	7	8189	I
blue_out_a<0>	8	7412	I
green_out_a<0>	28	17016	I
green_out_b<3>	29	11072	I
green_out_b<4>	27	11381	I
green_out_b<6>	26	14560	I
green_out_a<7>	81	6124	I
pad_XFIN_OUT	82	29	I
pad_A0	84	1187	I
pad_A1	85	4847	I
pad_Bain	86	12569	I
pad_Brisac	78	12626	I
pad_Brlampv	79	12390	I
pad_CREXP	35	398	I
pad_CTL0	34	8	I
pad_CTL1	33	9	I
pad_CTL2	36	10	I
pad_CTL1_XCL	37	11	I
pad_Ckinv	87	9820	I
pad_Coast	88	14531	I
pad_Jmsync	92		
pad_DVISCL	39	26	I
pad_DVISDA	90	25	I
pad_Gclampv	91	15566	I
pad_Gain	40	15701	I
pad_Gmidsc	38	15707	I
pad_JRin	41		
pad_Rclampv	94	16176	I
pad_REFOUT	93	16193	I
pad_Rain	95	16495	I
pad_Refin	43	16495	I
pad_Rterm	96	16	I
pad_Rxdn	97	21	I
pad_Rxkp	98	20	I
pad_Rxkn	99	19	I
pad_Rxip	100	18	I
pad_Rxin	101	17	I
pad_Rxzn	102	22	I
pad_Rxzp	103	16	I
pad_Rxcp	80	22	I
pad_SCANclk	12		
pad_SCANin	104	16693	I
pad_SCANout	44		
pad_SCL	105	7232	I
pad_SDA	81	8073	I
pad_SOGIN	106	15061	I
pad_SOGOUT	45	16328	I
pad_SyncOT	46	16329	I
pad_VSOUT	107		
pad_Vsync	42	657	I
pad_Vsync	48	6931	I
pad_clamp	47	16331	I
pad_dateck	49	16332	I
pad_dateckb	50	16326	I
pad_hsout	58		
red_out_a<0>	58	16318	I

Signal	Node	Value	
red_out_a<1>	57	16319	I
red_out_a<2>	56	16320	I
red_out_a<3>	55	16321	I
red_out_a<4>	54	16322	I
red_out_a<5>	53	16323	I
red_out_a<6>	52	16324	I
red_out_b<0>	66	16325	I
red_out_b<1>	65		
red_out_b<2>	64	16312	I
red_out_b<3>	63	16314	I
red_out_b<4>	62	16313	I
red_out_b<5>	61	16316	I
red_out_b<6>	60	16315	I
red_out_b<7>	59	16317	I

```
** BIG SCH NODE: AGND      ...  67 CONN = 778  I
** BIG SCH NODE: ALGND     ...  68 CONN = 420
** BIG SCH NODE: ALVDD     ...  69 CONN = 215
** BIG SCH NODE: AVDD      ...  70 CONN = 215
** BIG SCH NODE: DGND      ...  71 CONN = 465
** BIG SCH NODE: DVDD      ...  72 CONN = 353
** BIG SCH NODE: PVDD      ...  76 CONN = 157
** WARNING ** UN-LABELED BIG SCH NODE # 110 CONN = 215
** WARNING ** UN-LABELED BIG SCH NODE # 247 CONN = 209
** WARNING ** UN-LABELED BIG SCH NODE # 272 CONN = 2657
** WARNING ** UN-LABELED BIG SCH NODE # 295 CONN = 290
** WARNING ** UN-LABELED BIG SCH NODE # 424 CONN = 235
** WARNING ** UN-LABELED BIG SCH NODE # 28259 CONN = 315
** WARNING ** UN-LABELED BIG SCH NODE # 28260 CONN = 385
** WARNING ** UN-LABELED BIG SCH NODE # 28261 CONN = 209
** WARNING ** UN-LABELED BIG SCH NODE # 28262 CONN = 338
** WARNING ** UN-LABELED BIG SCH NODE # 28263 CONN = 338
** WARNING ** UN-LABELED BIG SCH NODE # 28264 CONN = 290
** WARNING ** UN-LABELED BIG SCH NODE # 28265 CONN = 206
** WARNING ** UN-LABELED BIG SCH NODE # 28266 CONN = 206
** WARNING ** UN-LABELED BIG SCH NODE # 28927 CONN = 581
** WARNING ** UN-LABELED BIG SCH NODE # 13 CONN = 581
** WARNING ** UN-LABELED BIG LAY NODE: DVDD     14 CONN = 465
** WARNING ** UN-LABELED BIG LAY NODE: DGND     28 CONN = 157
** BIG LAY NODE: AGND      ...  74 CONN = 778  I
** BIG LAY NODE: AVDD      ...  82 CONN = 715
** WARNING ** UN-LABELED BIG LAY NODE # 53 CONN = 290
** WARNING ** UN-LABELED BIG LAY NODE # 679 CONN = 215
** WARNING ** UN-LABELED BIG LAY NODE # 237 CONN = 2657
** WARNING ** UN-LABELED BIG LAY NODE # 546 CONN = 235
** WARNING ** UN-LABELED BIG LAY NODE # 1672 CONN = 209
** WARNING ** UN-LABELED BIG LAY NODE # 1614 CONN = 385
** WARNING ** UN-LABELED BIG LAY NODE # 1637 CONN = 389
** WARNING ** UN-LABELED BIG LAY NODE # 1626 CONN = 338
** WARNING ** UN-LABELED BIG LAY NODE # 5394 CONN = 305
** WARNING ** UN-LABELED BIG LAY NODE # 7367 CONN = 298
** WARNING ** UN-LABELED BIG LAY NODE # 7767 CONN = 206
** WARNING ** UN-LABELED BIG LAY NODE # 8038 CONN = 206
** WARNING ** UN-LABELED BIG LAY NODE # 8397 CONN = 581
```

NUMBER OF VALID CORRESPONDENCE NODE PAIRS = 97

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```
**************************************
*****   LVS DEVICE MATCH SUMMARY  *****
**************************************

NUMBER OF UN-MATCHED SCHEMATICS DEVICES   :        0
NUMBER OF UN-MATCHED LAYOUT DEVICES       :        0
NUMBER OF MATCHED SCHEMATICS DEVICES      :   136213
NUMBER OF MATCHED LAYOUT DEVICES          :   136213
```

```
****  DISCREPANCY POINTS LISTING  ****

            NO DISCREPANCIES
```

DEVICE MATCHING SUMMARY BY TYPE

TYPE	SUB-TYPE	TOTAL DEVICE SCH.	TOTAL DEVICE LAY.	UN-MATCHED DEVICE SCH.	UN-MATCHED DEVICE LAY.
MOS	P	122675	122676	0	1
MOS	N	123029	123029	0	0
SJT	SP	168	168	0	0
RES	P	241	247	0	0
RES	N	403	403	0	0
RES	N1	9	9	0	0
RES	N3	6	6	0	0
RES	NW	12	12	0	0
RES	P2	4	4	0	0
RES	B1	24	24	0	0
CAP	XD	96	96	0	0
DIO	N	21	21	0	0
CAP	PW	32	32	0	0
CAP	PS	170	318	0	0
				0	348

```
***** UN-MATCHED LAYOUT DEVICES *****
        (LIST UP TO 100)

?DEVU109742 MOS P    Y=-475.68
X=1209.28
79431, 777583, 777584
?DEV84    23.5?   CAP PS    L = 5.00
X=-105.55         Y=-148.10
79DEV82
794738, 794390
```

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```
?DEV85    CAP PS
794739, 794391    Y=-148.10
?DEV86    CAP PS
X=-62.55
?DEV87    CAP PS
794740,           Y=-148.10
?DEV107   CAP PS
X=-41.05          Y=-148.10
794741,
?DEV106   CAP PS
X=-41.05          Y=-108.10
794742, 794393
?DEV100   CAP PS
795256, 794408    Y=-133.40
?DEV110   CAP PS
X=-41.05          Y=-133.40
?DEV119   CAP PS
X=-105.55         Y=-133.40
794409
?DEV129   CAP PS
X=-105.55         Y=-118.70
794421
?DEV139   CAP PS
794420            Y=-118.70
?DEV148   CAP PS
X=-41.05          Y=-104.00
794433
?DEV158   CAP PS
X=-105.55         Y=-89.10
794144
?DEV167   CAP PS
X=-41.05          Y=-89.35
794445
?DEV175   CAP PS
X=-105.55         Y=-74.60
794467
?DEV186   CAP PS
X=-84.05          Y=-74.60
794458
?DEV197   CAP PS
794460            Y=-76.60
?DEV198   CAP PS
X=-41.05          Y=-76.60
?DEV207   CAP PS
794850            Y=614.65
?DEV216   CAP PS
794854, 794506
?DEV280   CAP PS
794855, 794507
?DEV281   CAP PS
X=-41.10          Y=614.65
794857, 794509
?DEV203   CAP PS
X=-105.60         Y=629.35
794872, 794524
```

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```
7DEVJ304    CAP PS
X=-61.10   795255  Y=629.35
79.4873.   794565
7DEVJ293.   CAP PS
X=-103.33  794565
X=-105.60   CAP PS
79.4884.   794536
7DSVJ233.   CAP PS
79.4885.  794537  Y=664.05
X=-105.60  794548  Y=658.75
7DEVJ339    CAP PS
X=-41.10   794549  Y=658.75
7DEVJ342    CAP PS
79.4897.   794549
X=-105.60  794551  Y=673.45
7DEVJ361.   CAP PS
79.4908.   794550
7DEVJ389    CAP PS
X=-105.60  794573  Y=688.15
7DEVJ390.   CAP PS
79.4921.   794573  Y=688.15
X=-84.10   794574
79.4922.   794574
X=-62.60    CAP PS
79.4923.   794575  Y=688.15
7DEVJ392.   CAP PS
79.4924.   794576  Y=688.15
7DEVJ453.   CAP PS
79.4971.   794623
X=-81.83    CAP PS  Y=1382.80
7DEVJ454.   CAP PS
79.4972.   794624  Y=1382.80
X=-66.33    CAP PS  Y=1382.80
7DEVJ456.   CAP PS
X=-103.33  794625  Y=1382.80
X=-38.83           Y=1397.50
79.4983.            Y=1397.50
7DEVJ476    CAP PS
79.4989.   794641
7DEVJ495    CAP PS
79.5000.   794652  Y=1412.20
X=-103.33  794652  Y=1412.20
7DEVJ498    CAP PS
X=-38.83   794653  Y=1412.20
7DEVJ501    CAP PS
79.5001.   794653  Y=1412.20
X=-103.33   CAP PS
7DEVJ514    CAP PS
79.5012.   794664  Y=1426.90
```

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```
7DEVJ517    CAP PS
X=-38.83   795011  Y=1426.90
79.5011.   794665
X=-103.33   CAP PS  Y=1441.60
795024.    794676
7DEVJ516    CAP PS
79.5025.   794677  Y=1441.65
7DEVJ564    CAP PS
X=-103.33  794689  Y=1456.30
795038.    794650
7DEVJ563    CAP PS
X=-81.83   794650
795039.    794651
7DEVJ562.   CAP PS
795040.    794651  Y=1456.30
7DEVJ567.   CAP PS
795066.    794692  Y=1456.30
X=-427.75   CAP PS
7DEVJ602.   CAP PS
X=-406.33   CAP PS  Y=-162.90
794721.    794371
7DEVJ604    CAP PS
794722.    794376  Y=-162.80
X=-384.95   CAP PS  Y=-162.80
7DEVJ82     CAP PS
X=-406.33   794388  Y=-148.10
794736.    794388
7DEVJ01     CAP PS
794737.    794389  Y=-148.10
X=-384.95   CAP PS  Y=-148.10
7DEVJ104    CAP PS
794752.    794406  Y=-133.40
X=-427.75   CAP PS  Y=-133.40
7DEVJ06     CAP PS
794766.    794418
X=-384.95   CAP PS  Y=-118.70
7DEVJ125    CAP PS
794767.    794419  Y=-118.70
7DEVJ142    CAP PS
X=-427.75   794430  Y=-104.00
794779.    794431  Y=-104.00
7DEVJ146    CAP PS
X=-384.95   CAP PS  Y=-104.00
7DEVJ161    CAP PS
794790.    794442  Y=-89.30
```

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```
: ?DEV163    CAP PS
  794734  794441
  X=-427.75  Y=-89.30
: ?DEV192    CAP PS
  794802  79454+
  X=-427.75  Y=-74.60
: ?DEV193    CAP PS
  794803  79455
  X=-406.35  Y=-74.60
: ?DEV194    CAP PS
  794804  79455
  X=-406.35  Y=-74.60
: ?DEV231    CAP PS
  794856  79456
  X=-427.75  Y=-71.60
: ?DEV232    CAP PS
  794822  794673
  X=-406.35  Y=-59.90
: ?DEV256    CAP PS
  794823  794475
  X=-384.95  Y=-59.90
: ?DEV257    CAP PS
  794824  794474
  X=-406.35  Y=-59.90
: ?DEV276    CAP PS
  794836  794488
  X=-406.40  Y=599.95
: ?DEV277    CAP PS
  794837  794489
  X=-385.00  Y=599.95
: ?DEV300    CAP PS
  794850  79450
  X=-427.80  Y=-614.65
: ?DEV317    CAP PS
  794851  794490
  X=-406.13  Y=-614.65
: ?DEV318    CAP PS
  794852  794505
  X=-385.00  Y=614.65
: ?DEV338    CAP PS
  794871  794522
  X=-427.80  Y=629.35
: ?DEV355    CAP PS
  794872  794523
  X=-427.80  Y=644.05
  794882  794534
  794883  794535
  794884  794527  Y=658.75
  794885  794566  Y=658.75
  794906  794558
```

```
1

: ?DEV357    CAP PS
  794585  794559  Y=673.65
: ?DEV386    CAP PS
  794918  194570
  X=-427.80  Y=688.15
: ?DEV387    CAP PS
  794919  19457+
  X=-406.40  Y=688.15
: ?DEV388    CAP PS
  794920  794572  Y=688.15
: ?DEV405    CAP PS
  794937  794589  Y=702.85
: ?DEV406    CAP PS
  794938  194590
  X=-406.40  Y=702.85
: ?DEV431    CAP PS
  794959  794431  Y=-702.85
: ?DEV432    CAP PS
  794951  194605
  X=-425.53  Y=368.10
: ?DEV450    CAP PS
  794606  794432
  X=-604.13  Y=368.10
: ?DEV451    CAP PS
  794607  794453  Y=-382.80
  794653  794619  Y=-382.80
: ?DEV452    CAP PS
  794599  794620  Y=1.382.80
: ?DEV475    CAP PS
  794621  794640  Y=1.382.80
: ?DEV492    CAP PS
  794986  794638
  X=-625.53  Y=1.397.50
: ?DEV493    CAP PS
  794998  794650  Y=1.412.20
: ?DEV511    CAP PS
  794999  794651
  X=-625.53  Y=1.412.20
  X=5.382.73
: ?DEV510    CAP PS
  795010  794662  Y=1.426.90
```

THE REST OF UN-MATCHED LAYOUT DEVICES ARE NOT LISTED

....

Exhibit 5
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```
:::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::
::::::::::::::::::::    LVS SUMMARY (REPEATED)    ::::::::::::
:::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::

:::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::
::::::::::::::::::    LVS DEVICE MATCH SUMMARY    ::::::::::::
:::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::

NUMBER OF UN-MATCHED SCHEMATICS DEVICES  ::::::::::::::      0
NUMBER OF UN-MATCHED LAYOUT DEVICES      ::::::::::::::    349
NUMBER OF MATCHED SCHEMATICS DEVICES     :::::::::::::: 136213
NUMBER OF MATCHED LAYOUT DEVICES         :::::::::::::: 136213

:::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::
::::::::::::::::    DEVICE MATCHING SUMMARY BY TYPE    ::::::
:::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::
```

TYPE	SUB-TYPE	TOTAL DEVICE SCH.	LAY.	UN-MATCHED DEVICE SCH.	LAY.
MOS	P	122615	122676	0	1
MOS	N	123029	123029	0	0
BJT	SP	168	168	0	0
RES	P	247	247	0	0
RES	N1	1	1	0	0
RES	N	403	403	0	403
RES	K3	6	6	0	0
RES	NW	12	12	0	12
RES	P2	4	4	0	4
RES	B1	24	24	0	24
DIO	ND	96	96	0	96
RES	N	21	21	0	21
CAP	N	32	32	0	0
CAP	PW	12	12	0	0
CAP	PS	170	518	0	348

```
::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::
:  "*/#" -- SCHEMATIC AND LAYOUT MAY NOT MATCH            :
:          CHECK ALL ABOVE DISCREPANCY                   :
:          AND WARNING MESSAGES                          :
::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::
```

Exhibit 5
Serial No. 10/717,394
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```
'/N'   DRACULA ( REV. 4.7.03-2000 / ..... SUN-4 S534 ..../GENDATE: 29-FEB/2000 )
'/N'   EXEC TIME = ..... ( Copyright 1995, Cadence )
'/N'   ..........  DATE=14-MAY-2002     HOSTNAME = firebird

INDISK PRIMARY CELL : 9887A

........ LVSNET SUMMARY REPORT .........

'EFFECT VALUE= 0.0000000

........ STATISTICS BEFORE REDUCE (LAYOUT) SUMMARY REPORT ........

OPTION TO EXTRACT SUBSTRATE NODES OF GATES IS -- OFF
OPTION TO FORK CMOS GATES IS -- ON
OPTION TO SMASH PSEUDO PARALLEL DEVICES IS -- ON
OPTION TO CONSTRUCT MOS PARALLEL/SERIES STRUCTURES IS -- ON
OPTION TO SMASH PARALLEL DEVICES IS -- ON
```

STATISTICS BEFORE REDUCE ****

MOS	BJT	RES	DIODE	CAP	UND	BOX	CELL	LDD
2916615	195	961	163	315	348	0	0	0

```
........ REDUCE (SCHEMATIC) SUMMARY REPORT ........
```

STATISTICS AFTER REDUCE ****

MOS	BJT	RES	DIODE	CAP	UND	SDWI	PDWI	SUPI
56627	68	706	56627	223	348	63	0	58
INV	SDV	PDW	SUP	AND	OR			NAND
56627	170	128	387	513	2521			11394
NOR	OAI	UND	BOX	CELL	LDD	AOI	PVID	XOSCAP
183	0	0	0	0	0	384	0	181
DRAM	SRAM							
1929	348							

```
........ STATISTICS BEFORE REDUCE SUMMARY REPORT ........
```

REDUCE (LAYOUT) SUMMARY REPORT ****

MOS	BJT	RES	DIODE	CAP	UND	BOX	CELL	LDD
268800	191	807	115	264	0	0	0	0

STATISTICS AFTER REDUCE ****

MOS	BJT	RES	DIODE	CAP	UND	SDWI	PDWI	SUPI
58626	168	705	96	223	0	63	0	58
INV	SDV	PDP	SUP	AND	OR			NAND
183	128	387	131	513	2521			11159
NOR	OAI	UND	BOX	CELL	LDD	AOI	PVID	XOSCAP
1929	1925	0	0	0	0	384	0	181
DRAM	SRAM							
0	0							

```
'/N'  WARNING :: SOFT-CONNECTING MULTIPLE NODES IN UPPER LAYERS
             TO ONE POLYGON REGION IN: NPINT

'/I'  # OF REGIONS MULTIPLE SOFT-CONNECTED =    4

'/I'  PLEASE REFER TO .ERC FILE FOR DETAIL

'/N'  WARNING :: SOFT-CONNECTING MULTIPLE NODES IN UPPER LAYERS
             TO ONE POLYGON REGION IN: PPINT

'/N'  WARNING :: SOFT-CONNECTING MULTIPLE NODES IN UPPER LAYERS
             TO ONE POLYGON REGION IN: PFINT

'/I'  # OF REGIONS MULTIPLE SOFT-CONNECTED =    453

'/I'  PLEASE REFER TO .ERC FILE FOR DETAIL

........ LVS REPORT ........

DATE : 14-MAY-2002
TIME : 12:21:21

PRIMLINE                          =     1000
WPERCENT(MOS)                     =    2.000 %
LPERCENT(MOS)                     =    1.000 %
BJT EMITTER AREA CHECK: EMAPER=       5.000 %
CAPACITOR VALUE CHECK: CAPPER=        2.000 %
RESISTOR WIDTH CHECK: RESWPR=         2.000 %
RESISTOR LENGTH CHECK: RESLPR=        5.000 %
DIODE AREA CHECK: DAPER=              5.000 %
UNSPECIFIED SCHEMATICAL PARAMETERS ARE CONSIDERED AS MISMATCH
UNSPECIFIED LAYOUT PARAMETERS ARE CONSIDERED AS MISMATCH

........ CORRESPONDENCE NODE PAIRS ........
```

SCHEMATICS		LAYOUT		PAD TYPE
AGND	67	AGND	74	G
ALGND	68	ALGND	679	P
ALVDD	69	ALVDD	82	P
AVDD	70	AVDD	14	G
DGND	71	DGND	6	P
DVDD	72	DVDD	5	P
OGND	73	OGND	9	P
OVDD	74	OVDD	27	G
PGND	75	PGND	28	P
PVDD	76	PVDD	H	P
SUBGND	77	SUBGND	12618	P
green_out_b<0>	32	green_out_b<0>	16152	I
green_out_a<6>	18	green_out_a<6>	16615	I
green_out_b<6>	13	green_out_b<6>	16525	I
green_out_a<5>	20	green_out_a<5>	16097	I

1

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Signal	#	Node	Count	
green_out_a<3>	21	green_out_a<3>	16016	I
green_out_a<5>	23	green_out_a<5>	15710	I
green_out_a<4>	24	green_out_a<4>	15709	I
green_out_b<7>	25	green_out_b<7>	15705	I
blue_out_b<7>	31	green_out_b<6>	12695	I
blue_out_b<6>	12	green_out_b<4>	695	I
blue_out_b<5>	11	green_out_b<3>	636	I
blue_out_b<4>	13	green_out_b<2>	450	I
blue_out_b<3>	14	green_out_b<1>	162	I
blue_out_b<2>	16	green_out_b<0>	87	I
blue_out_b<1>	15	blue_out_b<7>	12786	I
blue_out_b<0>	17	green_out_a<7>	16177	I
green_out_a<7>	29	green_out_b<5>	13881	I
green_out_a<6>	28	green_out_b<6>	13007	I
green_out_a<2>	27	green_out_b<3>	12736	I
green_out_a<1>	9	blue_out_a<7>	8189	I
green_out_a<0>	7	blue_out_a<5>	914	I
blue_out_a<7>	5	blue_out_a<4>	10037	I
blue_out_a<6>	4	blue_out_a<1>	11150	I
blue_out_a<5>	30	blue_out_a<3>	13704	I
blue_out_a<4>	3	blue_out_a<2>	12112	I
blue_out_a<3>	2	blue_out_a<6>	12236	I
blue_out_a<2>	1	blue_out_bcd	12167	I
blue_out_a<1>	6	blue_out_bcd	0	I
blue_out_a<0>	8	pad_clamp	162	I
pad_XFIN_OUT	18	pad_datackb	41	I
pad_AO	83	pad_AO	6124	I
pad_Bain	85	pad_Bain	4421	I
pad_Bclampv	84	pad_Bclampv	1380	I
pad_Bmidsc	33	pad_Bmidsc	12626	I
pad_CEXT	34	pad_CEXT	38	I
pad_CTL0	74	pad_CTL0	6	I
pad_CTL1	35	pad_CTL1	9	I
pad_CTL2	72	pad_CTL2	10037	I
pad_CTL2_XCL	36	pad_CTL2_XCL	9821	I
pad_Cint	37	pad_Cint	101	I
pad_Clivv	91	pad_Clivv	144	I
pad_Coast	92	pad_Coast	553	I
pad_DE	38	pad_DE	16330	I
pad_DVISCL	89	pad_DVISCL	26	I
pad_DVISDA	90	pad_DVISDA	15566	I
pad_Gain	40	pad_Gain	15701	I
pad_Genisc	41	pad_Genisc	15707	I
pad_Gsync	39	pad_Gsync	144	I
pad_MDA	42	pad_MDA	16694	I
pad_REFOUT	93	pad_REFOUT	16693	I
pad_Rain	94	pad_Rain	16832	I
pad_Rclampv	95	pad_Rclampv	16495	I
pad_Refin	96	pad_Refin	16488	I
pad_Rierm	97	pad_Rierm	15	I
pad_Rxon	98	pad_Rxon	21	I
pad_Rxin	99	pad_Rxin	20	I
pad_Rxip	100	pad_Rxip	19	I
pad_Rxzn	101	pad_Rxzn	17	I

Signal	#	Node	Count	
pad_Rxjp	102	pad_Rxjp	16	I
pad_Rxon	80	pad_Rxon	23	I
pad_Rxzn	103	pad_Rxzn	12	I
pad_SCANin	104	pad_SCANin	16693	I
pad_SCANout		pad_SCANout	7232	I
pad_SCANclk	163	pad_SCANclk	8073	I
pad_SDA	81	pad_SDA	15081	I
pad_SOGIN	106	pad_SOGIN	9557	I
pad_SOGOUT	45	pad_SOGOUT	16338	I
pad_SOGOUT	46	pad_SOGOUT	16338	I
pad_VSOUT	47	pad_VSOUT	16339	I
pad_Vsync	107	pad_Vsync	57	I
pad_clamp	108	pad_clamp	891	I
pad_datackA	48	pad_datackA	55	I
pad_datackb	49	pad_datackb	16326	I
pad_hsout	50	pad_hsout	16336	I
red_out_a<0>	59	red_out_a<0>	16326	I
red_out_a<1>	55	red_out_a<1>	16336	I
red_out_a<2>	54	red_out_a<2>	16332	I
red_out_a<3>	56	red_out_a<3>	16321	I
red_out_a<4>	53	red_out_a<4>	16334	I
red_out_a<5>	51	red_out_a<5>	16335	I
red_out_a<6>	52	red_out_a<6>	16333	I
red_out_a<7>	57	red_out_a<7>	16322	I
red_out_b<0>	66	red_out_b<0>	291	I
red_out_b<1>	61	red_out_b<1>	642	I
red_out_b<2>	64	red_out_b<2>	1633	I
red_out_b<3>	63	red_out_b<3>	1634	I
red_out_b<4>	62	red_out_b<4>	1615	I
red_out_b<5>	65	red_out_b<5>	16317	I
red_out_b<6>	67	red_out_b<6>		I
red_out_b<7>	59	red_out_b<7>		I
— TOTAL :	108	— :		

		BIG SCH NODE =	AGND				67 CONN =	718
		BIG SCH NODE =	A_GND				68 CONN =	473
		BIG SCH NODE =	ALGND				69 CONN =	215
		BIG SCH NODE =	AVDD				70 CONN =	715
		BIG SCH NODE =	DGND				71 CONN =	665
		BIG SCH NODE =	DVDD				76 CONN =	157
		BIG SCH NODE =	PVDD				74 CONN =	157
**	WARNING	**	UN-LABELED	BIG SCH NODE =	110 CONN =	235
**	WARNING	**	UN-LABELED	BIG SCH NODE =	133 CONN =	389
**	WARNING	**	UN-LABELED	BIG SCH NODE =	228 CONN =	269
**	WARNING	**	UN-LABELED	BIG SCH NODE =	241 CONN =	290
**	WARNING	**	UN-LABELED	BIG SCH NODE =	293 CONN =	290
**	WARNING	**	UN-LABELED	BIG SCH NODE =	296 CONN =	298
**	WARNING	**	UN-LABELED	BIG SCH NODE =	2829 CONN =	305
**	WARNING	**	UN-LABELED	BIG SCH NODE =	2839 CONN =	305
**	WARNING	**	UN-LABELED	BIG SCH NODE =	28261 CONN =	318
**	WARNING	**	UN-LABELED	BIG SCH NODE =	28262 CONN =	338
**	WARNING	**	UN-LABELED	BIG SCH NODE =	28263 CONN =	338
**	WARNING	**	UN-LABELED	BIG SCH NODE =	28264 CONN =	206
**	WARNING	**	UN-LABELED	BIG SCH NODE =	28265 CONN =	206
**	WARNING	**	UN-LABELED	BIG SCH NODE =	28266 CONN =	206
**	WARNING	**	UN-LABELED	BIG SCH NODE =	28279 CONN =	581
:	: :	:	UN-LABELED	BIG LAY NODE =	18 CONN =	333
:	: :	:	DVDD	BIG LAY NODE =		
:	: :	:	DVDD	BIG LAY NODE =	14 CONN =	165
:	: :	:	PVDD	BIG LAY NODE =		
**	WARNING	**	UN-LABELED	BIG LAY NODE =	48 CONN =	209
**	WARNING	**	UN-LABELED	BIG LAY NODE =	53 CONN =	290

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1
:  BIG LAY NODE  :  AGND          74 CONN =   778
:  BIG LAY NODE  :  AVDD          82 CONN =   715
:  BIG LAY NODE  :  ALGND        10D CONN =   715
WARNING :  UN-LABELED BIG LAY NODE     237 CONN =   546
WARNING :  UN-LABELED BIG LAY NODE     679 CONN =   215
:  BIG LAY NODE  :  ALVDD
WARNING :  UN-LABELED BIG LAY NODE         377 CONN =   389
WARNING :  UN-LABELED BIG LAY NODE        1616 CONN =   338
WARNING :  UN-LABELED BIG LAY NODE        1637 CONN =   338
WARNING :  UN-LABELED BIG LAY NODE         461 CONN =   338
WARNING :  UN-LABELED BIG LAY NODE        1441 CONN =   305
WARNING :  UN-LABELED BIG LAY NODE        7567 CONN =   298
WARNING :  UN-LABELED BIG LAY NODE        7767 CONN =   206
WARNING :  UN-LABELED BIG LAY NODE        8038 CONN =   206
WARNING :  UN-LABELED BIG LAY NODE        8397 CONN =   581
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NUMBER OF VALID CORRESPONDENCE NODE PAIRS =   97

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1
                    DISCREPANCY POINTS LISTING

NUMBER OF UN-MATCHED SCHEMATICS DEVICES         5
NUMBER OF UN-MATCHED LAYOUT DEVICES           359
NUMBER OF MATCHED SCHEMATICS DEVICES       116608
NUMBER OF ...                              116608
```

--- LVS DEVICE MATCH SUMMARY ---

--- DISCREPANCY 1 ---

--- NODE X1144-X11-X18-16_CO
--- WITH UN-MATCHED DEVICES ---

OCCURRENCE NAME X1144-X11-X18-X17-U21_OUT.
7BEV239S576 NAND
X1144-X11-X18-X17-U21_IN2,
X1144-X11-X18-16_CO2,
X1144-X11-X18-X17-U27_IN2
OCCURRENCE NAME X1144-X11-X18-X17-U28-INCP8

DEV308789 NOR
X1144-X11-X18-X17-U28_IN2,
X1144-X11-X18-X17-U27_IN2,
X1144-X11-X18-16_CO
OCCURRENCE NAME X1144-X11-X18-X17-U28_IN2   ***** UN-MATCHED *****

DEV108791 NOR
X1144-X11-X18-X16-U28_OUT.
X1144-X11-X18-X16-U28_IN2,
X1144-X11-X18-X17-U27_IN2,
X1144-X11-X18-16_CO
OCCURRENCE NAME X1144-X11-X18-X16-INCP8

DEV332999 NOR
Y-1061.20
X-1056.90
X1144-X11-X18-X16-U28_OUT.
X1144-X11-X18-16_CO
X1144-X11-X18-X16-U28_IN2

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DEV321125 INV   DEV339343 INV   Y-1111.25
X1144-X11-X18-X14-INCP8,   X1146-X11-X18-X14-INCP8,
X1144-X11-X18-16_CO   X1144-X11-X18-16_CO

                                        DEV327706 INV
                                        X-1046.70   Y-1063.40
                                        X1144-X11-X18-16_CO,
DEV339528 INV   X1144-X11-X18-X17-U21_OUT,
X1144-X11-X18-16_CO,   7BEV29024767 SDW   Y-1068.10
X1144-X11-X18-16_CO   X1144-X11-X18-X17-U21_OUT,
                                        X1144-X11-X18-16_CO
                                        OCCURRENCE NAME X1144-X11-X18-X17-U21_IN2

--- NODE X1144-X11-X18-13_CO
--- WITH UN-MATCHED DEVICES ---

OCCURRENCE NAME X1144-X11-X18-X14-U21_OUT.   --- DISCREPANCY 2 ---
7BEV239S81 NAND
X1144-X11-X18-X14-U27_IN2,
X1144-X11-X18-X14-U21_OUT.
X1144-X11-X18-13_CO
OCCURRENCE NAME X1144-X11-X18-X14-U28_IN2

DEV308794 NOR   DEV333002 NOR
X1144-X11-X18-X13-U28_OUT,   X-1105.90   Y-1036.20
X1144-X11-X18-X13-U28_IN2,   X1144-X11-X18-X13-U28_OUT,
X1144-X11-X18-13_CO   X1144-X11-X18-X13-U28_IN2,
OCCURRENCE NAME X1144-X11-X18-X13-U28_OUT   X1144-X11-X18-13_CO

DEV308801 NOR   DEV333005 NOR   Y-1041.10
X1144-X11-X18-X14-U28_OUT,   X-1010.80
X1144-X11-X18-X14-U28_IN2,   X1144-X11-X18-X14-U28_OUT,
X1144-X11-X18-X14-U27_IN2,   X1144-X11-X18-X14-U28_IN2,
X1144-X11-X18-13_CO   X1144-X11-X18-X14-U27_IN2,
OCCURRENCE NAME X1144-X11-X18-X14-U28_IN2   X1144-X11-X18-13_CO

                                        DEV362709 INV
                             ***** UN-MATCHED *****   X-1097.70   Y-1038.40
                                        X1144-X11-X18-16_CO,
                                        X1144-X11-X18-X13_CO,_OUT
                                        X1144-X11-X18-X13-U28_IN2
                                        DEV362704767 PUP   Y-1041.10
                                        X-1097.70
                                        X1144-X11-X18-16_CO,
                                        X1144-X11-X18-X14-U27_IN2
                                        7DEV035894 PUP   Y-1068.20
                                        754785, X1144-X11-X18-16_CO,
                                        X1144-X11-X18-X17-U27_IN2

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```
.... DISCREPANCY   3 ....

--- NODE X1144-X11-X18-X15_U21_OUT
---WITH UN-MATCHED DEVICES----

OCCURRENCE NAME X1144-X11-X18-X15_U21_OUT
?DEV296582 NAND   ***** UN-MATCHED *****
X1144-X11-X18-X15-U21_OUT,
X1144-X11-X18-X15-U27_IN2,
X1144-X11-X18-X15-U27_IN2
OCCURRENCE NAME X1144-X11-X18-X15_U28_IN2

DEV308798 NOR   DEV333002 NOR   : Y=-1043.10
X1144-X11-X18-X15-U28_IN2,   X1100.50   : Y=-1043.10
X1144-X11-X18-X15-U28_IN2,   X1144-X11-X18-X15-U28_OUT,
X1144-X11-X18-X14_U28_IN2   X1144-X11-X18-X14_U28_IN2
OCCURRENCE NAME X1144-X11-X18-X14-U28_IN2

DEV308800 NOR   DEV333006 NOR   : Y=-1043.10
X1144-X11-X18-X14-U28_OUT,   X1096.30   : Y=-1043.10
X1144-X11-X18-X14_U28_IN2   X1144-X11-X18-X14_U28_OUT,
                                       X1144-X11-X18-X14_U21_OUT
                                       OCCURRENCE NAME X1144-X11-X18-X14_U21_OUT

                                       DEV362706 INV   : Y=-1043.10
                               ***** UN-MATCHED *****   X1054.40 : X1144-X11-X18-X14_U21_OUT,
                                       X1144-X11-X18-X14_U21_IN2

DEV359531 INV   ?DEV318893 PUP   : Y=-1043.10
X1144-X11-X18-X17-U27_IN2   752705.90
X1144-X11-X18_U21_OUT   ?DEV296946 SDN   : Y=-1043.10
                                       X1144-X11-X18-X17_U27_IN2

.... DISCREPANCY   4 ....

                                       DEV265593 MOS P   : Y=-1073.75
DEV259530 MOS P   ----   X1070.00   : X1144-X11-X1-
8-X17-MM39   X1144-X11-X18-X17-INCP,
X1144-X11-X18-X17-INCP   X1144-X11-X18-X17_U27_IN2,
X1144-X11-X18-X17-U27_IN2,   X1144-X11-X18-X17_U21_IN2
X1144-X11-X18-X17_U21_IN2

DEV259498 MOS N   ---- X1144-X11-X1- DEV259528 MOS N   : Y=-1068.75
8-X17-MM40   X-1074.25   : X1144-X11-X1-
X1144-X11-X18-X17-INCP&   X1144-X11-X18-X17_U27_IN2,
X1144-X11-X18-X17-U27_IN2,   X1144-X11-X18-X17_U12_IN2
X1144-X11-X18-X17_U12_IN2
OCCURRENCE NAME X1144-X11-X18-X17_U27_IN2
```

```
X1144-X11-X18-X17-U21_OUT,
X1144-X11-X18-X17_U27_IN2
OCCURRENCE NAME  X1144-X11-X18-X17_U27_IN2

DEV296577 INV                          DEV302286 INV       : Y=-1067.75
X1144-X11-X18-X17_U28_IN2,             X1080.10            : X1144-X11-X18-X27_U27_IN2,
X1144-X11-X18-X27-U27_IN2,             X1144-X11-X18-X27_U27_IN2,
X1144-X11-X18-X27_U30_IN                X1144-X11-X18-X27_U30_IN
OCCURRENCE NAME  X1144-X11-X18-X17_U28_IN2

DEV308789 NOR                          DEV331052 NOR       : Y=-1068.10
                                       X-1052.40           : Y=-1068.10
X1144-X11-X18-X17-U28_IN2,             X1144-X11-X18-X17_U28_IN2,
X1144-X11-X18-X17-U27_IN2,             X1144-X11-X18-X17_U27_IN2,
X1144-X11-X18-X16_CO                   X1144-X11-X18-X16_CO
OCCURRENCE NAME  X1144-X11-X18-X17_CO

DEV333132 INV                          DEV354683 INV       : Y=-1068.10
X1144-X11-X18-X17_CO,                  X-1085.15           : X1144-X11-X18-X17_CO,
X1144-X11-X18-X17_U27_IN2              X1144-X11-X18-X17_U27_IN2
                                       X1144-X11-X18-X16_CO  : Y=-1068.10
                                       X1144-X11-X18-X16_CO
                               ***** UN-MATCHED *****      X1144-X11-X18-X16_U21_OUT,
                                       X1144-X11-X18-X15_U21_OUT,
                                       X1144-X11-X18-X15_U27_IN2

.............................................. DISCREPANCY                5 .....................

--- NODE X1144-X11-X18-X17_U21_OUT
---WITH UN-MATCHED DEVICES----

OCCURRENCE NAME  X1144-X11-X18-X17_U21_OUT
?DEV296577 NAND                                            ***** UN-MATCHED *****
X1144-X11-X18-X17_U21_OUT,
X1144-X11-X18-X17_U27_IN2,
X1144-X11-X18-X17_U27_IN2
OCCURRENCE NAME  X1144-X11-X18-X17_CO

DEV359527 INV                          DEV362705 INV       : Y=-1068.10
X1144-X11-X18-X17_CO,                  X-1045.90           : Y=-1068.10
X1144-X11-X18-X17_U21_OUT              X1144-X11-X18-X17_CO,
                                       ?DEV294765 SDN      : Y=-1068.10
                                       X-1047.30
                                       X1144-X11-X18-X17_U21_OUT,
                                       X1047.30            : Y=-1068.10
                                       X1144-X11-X18-X17_U21_OUT,
                                       X1144-X11-X18-X17_U27_IN2
                                       X1144-X11-X18-X15_U21_OUT,
                                       X1144-X11-X18-X17_U27_IN2

.............................................. DISCREPANCY                6 .....................

--- NODE X1144-X11-X18-X15_U27_IN2
---WITH UN-MATCHED DEVICES----
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```
DEV259652 MOS P ----                          X1144-X11-X1
8-X15-mU59                        : X-1081.00    Y=1043.75
X1144-X11-X18-X15-INCP,
X1144-X11-X18-X15-U27_IN2,
X1144-X11-X18-X15-U12_IN2

DEV259630 MOS N ----  X1144-X11-X1   DEV076648 MOS P ----
8-X15-mX40                        : X-1081.00    Y=1043.75
X1144-X11-X18-X15-INCPB,          : X-1081.25    Y=1043.75
X1144-X11-X18-X15-U27_IN2,          X1144-X11-X18-X15-INCP,
X1144-X11-X18-X15-U12_IN2           X1144-X11-X18-X15-U27_IN2,
OCCURRENCE NAME  X1144-X11-X18-X15-U21_OUT,    X1144-X11-X18-X15-U12_IN2
?DEV259682 NAND
OCCURRENCE NAME  X1144-X11-X18-X15-U21_OUT,  ***** UN-MATCHED *****

DEV296583 INV                       DEV320286 INV
X1144-X11-X18-X15-U27_IN2,        : X-1043.10
X1144-X11-X18-X15-U27_IN2,          X1144-X11-X18-X15-U27_IN2,
OCCURRENCE NAME  X1144-X11-X18-X15-U28_IN2    X1144-X11-X18-X15-U27_IN2

DEV308798 XOR                       DEV333003 NOR
X1144-X11-X18-X15-U28_IN2,        : X-1058.40    Y-1043.10
X1144-X11-X18-X15-U27_IN2,          X1144-X11-X18-X14-U21_OUT,
X1144-X11-X18-X15-U27_IN2           X1144-X11-X18-X15-U28_IN2,
OCCURRENCE NAME  X1144-X11-X18-X15-U28_IN2    X1144-X11-X18-X15-U27_IN2

DEV331138 INV                       DEV354687 INV
X1144-X11-X18-X15_ON,             : X-1092.15    Y=1043.10
X1144-X11-X18-X15-U27_IN2           X1144-X11-X18-X15_ON,
                                    X1144-X11-X18-X15-U27_IN2
***** UN-MATCHED *****

                                    DEV362707 INV
                                  : X-1054.40    Y=1043.10
--- NODE X1144-X11-X18-X15-U21_OUT  755948,  X1144-X11-X18-14_CO,
  --WITH UN-MATCHED DEVICES---    ?DEV318913 PUP
                                  : X-1052.90
                  DISCREPANCY       X1144-X11-X18-15_CO,

DEV339530 NOR           7         DEV362707 INV
X-1054.60                         : Y-1043.10
X1144-X11-X18-15_CO,                X1144-X11-X18-15_CO,

DEV339530 NOR
X1144-X11-X18-15.CO
```

```
                                    X1144-X11-X18-X15-U21_OUT
X1144-X11-X18-X15-U21_OUT         : ***** UN-MATCHED *****
***** UN-MATCHED *****

                                    DEV076649 MOS P ----
--- NODE X1144-X11-X18-X14-U27_IN2  : X-1097.80    Y=1043.75
  --WITH UN-MATCHED DEVICES---        X1144-X11-X18-X15-U21_OUT,
                                      X1144-X11-X18-X15-U27_IN2
                  DISCREPANCY

                        8
DEV259696 MOS P ----  X1144-X11-X1
8-X14-mU59                        : X-1097.80    Y=1043.75
X1144-X11-X18-X14-INCP,           : X-1097.80    Y=1043.75
X1144-X11-X18-X14-U27_IN2,          X1144-X11-X18-X15-INCPB,  MOS N
X1144-X11-X18-X14-U12_IN2           X1144-X11-X18-X14-U27_IN2,
                                    X1144-X11-X18-X14-U12_IN2

DEV259674 MOS N ----  X1144-X11-X1  DEV076715 MOS N ----
8-X14-mUX40                       : X-1097.75    Y=1043.75
X1144-X11-X18-X14-INCPB,
X1144-X11-X18-X14-U27_IN2,
X1144-X11-X18-X14-U12_IN2
OCCURRENCE NAME  X1144-X11-X18-X14-U21_OUT  ***** UN-MATCHED *****
?DEV259694 NAND
OCCURRENCE NAME  X1144-X11-X18-X14-U27_IN2

DEV308801 NOR                       DEV333005 NOR
X1144-X11-X18-X14-U28_IN2,        : X-1101.80    Y=1043.10
X1144-X11-X18-X14-U27_IN2,          X1144-X11-X18-X14-U21_OUT,
X1144-X11-X18-X14-U27_IN2,          X1144-X11-X18-X14-U27_IN2,
OCCURRENCE NAME  X1144-X11-X18-X14-U28_IN2    X1144-X11-X18-X14-U27_IN2

DEV296585 INV                       DEV332027 INV
X1144-X11-X18-X14-U27_IN2,        : X-1136.50    Y=1043.10
X1144-X11-X18-X14-U27_IN2,          X1144-X11-X18-X14_ON,
OCCURRENCE NAME  X1144-X11-X18-X14-U28_IN2    X1144-X11-X18-X14-U27_IN2

DEV331140 INV                       DEV354689 INV
X1144-X11-X18-X14_ON,             : X-1135.55    Y=1043.10
X1144-X11-X18-X14-U27_IN2           X1144-X11-X18-X14_ON,
                                    X1144-X11-X18-X14-U27_IN2
***** UN-MATCHED *****

                  DISCREPANCY       ?DEV318914 PUP
                                  : X-1097.80
                        9           755969,  X1144-X11-X18-14_CO,
                                    X1144-X11-X18-X14-U27_IN2
```

--- NODE X1144-X11-X18-X14-U21_OUT
---WITH UN-MATCHED DEVICES------

OCCURRENCE NAME   X1144-X11-X18-X14-U21_OUT
?DEV295684 NAND
X1144-X11-X18-X14-U21_OUT.
X1144-X11-X18-X14-U21_OUT.
?DEV295676 SDW
X1144-X11-X18-X14-_IN2

OCCURRENCE NAME   X1144-X11-X18-14_CO

DEV339531 INV   : DEV362708 INV   Y=1043.10
X1144-X11-X18-14_CO.   X1096.10   X1144-X11-X18-14_CO.
X1144-X11-X18-X14-U21_OUT.   X1144-X11-X18-X14_CO.
?DEV297613 SDW   Y=1043.10
X1097.70   Y-1043.10
X1144-X11-X18-X14-U21_OUT.
X1144-X11-X18-X14-13_CO.
          ..... UN-MATCHED .....   X1144-X11-X18-X14-U21_IN2

.... UN-MATCHED .....

--- NODE X1144-X11-X10-X1-X127-X10-10_2N
---WITH UN-MATCHED DEVICES------

OCCURRENCE NAME   X1144-X11-X10-X1-X127-X10-10_2N   ..... UN-MATCHED .....

DEV294214 INV   : DEV312594 INV   Y=1060.45
X1144-X11-X10-X1-X127-X10-U16_OU   X4168.60   Y-1060.45
X1144-X11-X10-X1-X127-X10-10_2N   X1144-X11-X10-X1-X127-X10-U16_OU
?DEV296656 NAND   X1144-X11-X10-X1-X127-X10-10_2N
OCCURRENCE NAME   X1144-X11-X10-X1-X127-X10-U16_OUT
X1144-X11-X10-X1-X127-X10-U16_OU.
X1144-X11-X10-X1-X127-X10-10_2N.
?, IN2   : DISCREPANCY   10 ....

OCCURRENCE NAME   X1144-X11-X10-X1-X127-X10-U16_OUT

DEV308818 NOR   : DEV312993 NOR
X1144-X11-X10-X1-X127-X10-X1402-U21.   X4776.00   Y-1414.80
X1144-X11-X10-X1-X127-X10-X1402-U28.   X4766.30   X-1414.80
IN2, X1144-X11-X10-X1-X127-X10-X1402   X1144-X11-X10-X1-X127-X10-X1402-U21.
-U02, IN2, X1144-X11-X10-X1-X127-X10-X1402   X1144-X11-X10-X1-X127-X10-X1402-U28.
X1144-X11-X10-X1-X127-X10-10_2N   ?DEV296756 SDW
          UN-MATCHED .....   X1144-X11-X10-X1-X127-X10-mn_D
              X1144-X11-X10-X1-X127-X10-10_2N

DEV310470 NOR   : DEV312128 NOR   Y=1414.80
X1144-X11-X10-X1-X127-X10-10_2N.   X4771.90   X4766.30
X1144-X11-X10-X1-X127-X10-X1402-U21.   X1144-X11-X10-X1-X127-X10-X1402-U21.
X1144-X11-X10-X1-X127-X10-X1402-U28.   X1144-X11-X10-X1-X127-X10-X1402-U28.
-U02, IN2   ?DEV296756 SDW
          UN-MATCHED .....   X1144-X11-X10-X1-X127-X10-mn_D
              X1144-X11-X10-X1-X127-X10-10_2N

..... UN-MATCHED .....   DEV318174 PUP
              X4772.00   Y-1440.40

--- NODE X1144-X11-X10-X1-X127-X10-10_2N
---WITH UN-MATCHED DEVICES------

DEV265363 MOS P   -----   DEV313971 NOS P
0-X1144-X11-X127-X10-X1402-mX19   X4798.60   Y-1440.45

X1144-X11-X10-X1-X127-X10-X15-X1G2-U27.

DISCREPANCY   11 ....

331481.
X1144-X11-X10-X1-X127-X10-i0-i2_IN
X1144-X11-X10-X1-X127-X10-X15-X1G2-U27.
IN2

--- NODE X1144-X11-X10-X1-X127-X10-i4_CO
---WITH UN-MATCHED DEVICES------

OCCURRENCE NAME   X1144-X11-X10-X1-X127-X10-X15-U21_OUT   ..... UN-MATCHED .....
?DEV295660 NAND
X1144-X11-X10-X1-X127-X10-X15-U21_OU.
?, X1144-X11-X10-X1-X127-X10-X15-U27.
?DEV295676 SDW
X1144-X11-X10-X1-X127-X10-X15-U27_LN

OCCURRENCE NAME   X1144-X11-X10-X1-X127-X10-i4_CO

DEV308824 NOR   : DEV312870 NOR
X1144-X11-X10-X1-X127-X10-i4_CO.   X4797.20   Y-1465.40
X1144-X11-X10-X1-X127-X10-X15-U27   ?DEV310843 PUP
OCCURRENCE NAME   X1144-X11-X10-X1-X127-X10-i4_CO   X4797.20   Y-1465.40

DEV308820 NOR   : DEV312050 INV
X1144-X11-X10-X1-X127-X10-i4-U28_OU   X4797.10   Y-1455.10
T, X1144-X11-X10-X1-X127-X10-X4-U28   X1144-X11-X10-X1-X127-X10-i4_CO.
X1144-X11-X10-X1-X127-X10-X15-U28_IN   X1144-X11-X10-X1-X127-X10-X15-U27-_2
T   ..... UN-MATCHED .....

OCCURRENCE NAME   X1144-X11-X10-X1-X127-X10-X15-U28_IN

DEV335582 INV   : DEV315896 NOR
X1144-X11-X10-X1-X127-X10-i4_CO.   X4797.20   Y-1465.40
X1144-X11-X10-X1-X127-X10-X4-U28_OU   ?DEV310843 PUP
          ..... UN-MATCHED X4797.20
              X1144-X11-X10-X1-X127-X10-i4_CO.
DISCREPANCY   12 ....   X1144-X11-X10-X1-X127-X10-X15-U27-_2
              2

..... UN-MATCHED .....

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```
                                          OUT, X1144-X11-X10-X11-X127-X10-X1402-U2L
                                          , X1144-X11-X10-X11-X127-X10-X14
DEV265341 MOS N          X1144-X11-X1 :   X1144-X11-X10-X11-X127-X10-X1402-INCP
0-X1144-X127-X10-X15-INCP  Y-1135.65   :   X1144-X11-X10-X11-X127-X10-X1402-U2
X1144-X11-X10-X11-X127-X10-X1402-INCP  :   02-U12_IN2
X1144-X11-X10-X11-X127-X10-X1402-U2   :
9, X1144-X11-X10-X11-X127-X10-X1402-J  :   DEV181484 MOS N         Y-1135 /15
27_IN2, X1144-X11-X10-X11-X127-X10-X1 :   0-X1144-X11-X10-X11-X127-X10-X15-INCP
402-U12_IN2                            :   X1144-X11-X10-X11-X127-X10-X1402-INCP
OCCURRENCE NAME   X1144-X11-X10-X11-Xi:   X1144-X11-X10-X11-X127-X10-X1402-U2
DEV296636 NAND                         :   27_IN2, X1144-X11-X10-X11-X127-X10-Xi
X1144-X11-X10-X11-X127-X10-X1402-U2L  :   402-U12_IN2
OUT, X1144-X11-X127-X10-X1402-U2L_    :   OCCURRENCE NAME   X1144-X11-X10-X11-Xi
, X1144-X11-X10-X11-X127-X10-X1402-U2 :   ***** UN-MATCHED *****
                                          OUT, X1144-X11-X10-X11-X127-X10-X1
OCCURRENCE NAME   X1144-X11-X10-X11-X127-X10-X1402-U27_IN2

DEV296637 INV              X-1804.20 :   DEV312083 INV          Y-1434.45
X1144-X11-X10-X11-X127-X10-X1402-U27, :   X1144-X11-X10-X11-X127-X10-X1402-U27
IN2, X1144-X11-X127-X10-X1402         :   IN2, X1144-X11-X10-X11-X127-X10-X1402
-U27_IN2                              :   IN2, X1144-X11-X10-X11-X127-X10-X1402
OCCURRENCE NAME   X1144-X11-X10-X11-X127-X10-X1402    :   OCCURRENCE NAME X1144-X11-X10-X11-X127-X10-X1402-U28_IN2

DEV308818 NOR                         :   DEV312993 NOR          Y-1434.80
X1144-X11-X10-X11-X127-X10-X1402-U28  :   0-X1144-X11-X10-X11-X127-X10-X1402-U28,
X1144-X11-X10-X11-X127-X10-X1402-U27  :   X1144-X11-X10-X11-X127-X10-X1402-U27
-U27_IN2.                             :   -U27_IN2,
X1144-X11-X10-X11-X127-X10-X1402-U27  :   X1144-X11-X10-X11-X127-X10-X1402-U27
OCCURRENCE NAME   X1144-X11-X10-X11-X127-X10-X1402   :   OCCURRENCE NAME X1144-X11-X10-X11-X127-X10-X1402

DEV311153 INV                         :   DEV319681 INV          Y-1434.80
X1144-X11-X10-X11-X127-X10-X1402_ON,  :   X1144-X11-X10-X11-X127-X10-X1402_ON,
X1144-X11-X11-X127-X10-X1402-U27,     :   X1144-X11-X10-X11-X127-X10-X1402-U27,
IN2                                   :   IN2
                                          OCCURRENCE NAME   X1144-X11-X10-X11-X127-X10-X1402

                                      :   ***** UN-MATCHED *****

      ***** UN-MATCHED *****              DEV325673 SEN          Y-1434.80
                                          X=1772.00
                                          X1144-X11-X10-X11-X127-X10-X1402-U21,
      ***** UN-MATCHED *****              DEV318074 PUP   Y-1440.40
                                          37481,
                                          X1144-X11-X10-X11-X127-X10-10_EN,
                                          -U27_IN2,
                                          X1144-X11-X10-X11-X127-X10-X1402-U27,
      DISCREPANCY       13               X1144-X11-X10-X11-X127-X10-X1402
OCCURRENCE NAME   X1144-X11-X10-X11-X127-X10-X1402-U2L_OUT
--- NODE X1144-X11-X10-X11-X127-X10-X1402-U2L_OUT
--- WITH UN-MATCHED DEVICES---
DEV296636 NAND                           ***** UN-MATCHED *****
X1144-X11-X10-X11-X127-X10-X1402-U2L.
```

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                                          OUT, X1144-X11-X10-X11-X127-X10-10_ZN
                                          , X1144-X11-X10-X11-X127-X10-X1402-U2
OCCURRENCE NAME   X1144-X11-X10-X11-X127-X10-02

DEV339581 INV                         :   DEV382704 INV          Y-1634.85
                                          X=1770.50
                                          X1144-X11-X10-X10-X11-X127-X10-X1402-CO,
                                          OUT
      ***** UN-MATCHED *****              X1144-X11-X10-X11-X127-X10-10_ZN
                                          OUT, X1144-X11-X10-X11-X127-X10-X1402-U2L

      ***** UN-MATCHED *****              DISCREPANCY       14
--- NODE X1144-X11-X10-X11-X127-X10-X1_IN2
--- WITH UN-MATCHED DEVICES---
DEV265455 MOS P ---                   :   DEV315651 MOS P
0-X1144-X127-X10-X15-U03_9            :   X=1823.80
X1144-X11-X10-X11-X127-X10-X15-INCP,  :   X1144-X11-X10-X11-X127-X10-X15-INCP,
IN2, X1144-X11-X10-X11-X127-X10-X15-U12, :   IN2, X1144-X11-X10-X11-X127-X10-X15-U12,
_IN2                                  :   IN2
                                          OCCURRENCE NAME X1144-X11-X10-X11-X127-X10-X15-U12

DEV265429 MOS N                       :   DEV319176 MOS N        Y-1660.45
0-X1144-X11-X10-X11-X127-X10-X15-U12, :   X1144-X11-X10-X11-X127-X10-X15-INCP9,
X1144-X11-X10-X11-X127-X10-X15-INCP9, :   X1144-X11-X10-X11-X127-X10-X15-U12,
X1144-X11-X10-X11-X127-X10-X15-U12    :   _IN2
_IN2                                  :   X1144-X11-X10-X11-X127-X10-X15-U12
OCCURRENCE NAME X1144-X11-X10-X11-X127-X10-X15-U12

DEV296641 INV                         :   DEV320281 INV          Y-1659.90
                                          X=1839.90
X1144-X11-X10-X11-X127-X10-X15-U27_IN   :   X1144-X11-X10-X11-X127-X10-X15-U27_IN
2, X1144-X11-X10-X11-X127-X10-X15-U27   :   2, X1144-X11-X10-X11-X127-X10-X15-U27
                                          OCCURRENCE NAME X1144-X11-X10-X11-X127-X10-1_CO

OCCURRENCE NAME   X1144-X11-X10-X11-X127-X10-1_CO

DEV308824 NOR                         :   DEV312987 NOR          Y-1659.80
                                          X=1801.20
X1144-X11-X10-X11-X127-X10-X15-U2E_IN :   0-X1144-X11-X10-X11-X127-X10-X15-U2E_IN
2, X1144-X11-X10-X11-X127-X10-X15-U27 :   2, X1144-X11-X10-X11-X127-X10-X15-U27
_IN2,                                 :   _IN2,
X1144-X11-X10-X11-X127-X10-1_CO       :   X1144-X11-X10-X11-X127-X10-1_CO
OCCURRENCE NAME X1144-X11-X10-X11-X127-X10-X15-U27

DEV331157 INV                         :   DEV354677 INV
```

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```
X1144-X11-X10-X11-X127-X10-15_ON    :  X*1834.95   Y=-1459.80
X1144-X11-X10-X11-X127-X10-X15-U21_ON
X1144-X11-X10-X11-X127-X10-X15-U21_IN                              2

*****  UN-MATCHED  *****                            *****  UN-MATCHED  *****

X1144-X11-X10-X11-X127-X10-X15-U21_OUT
X1797.10                                 :  X=-1459.80
T, X1144-X11-X10-X11-X127-X10-14_CO,
X1144-X11-X10-X11-X127-X10-X15-U21_OU                              2

OCCURRENCE NAME  X1144-X11-X10-X11-X127-X10-15_ON

?DEV294664 NAND                          ?DEV294753 SD#
T, X1144-X11-X10-X11-X127-X10-14_CO,     X1797.10         :  X=-1459.80
X1144-X11-X10-X11-X127-X10-X15-U21_OU    T, X1144-X11-X10-X11-X127-X10-14_CO,
                                 2       X1144-X11-X10-X11-X127-X10-X15-U21_OU
                                                                  2

OCCURRENCE NAME  X1144-X11-X10-X11-X127-X10-15_CO

DEV033583 INV                            DEV287702 INV    Y=-1459.80
                                         X1797.10         :  X=-1459.80
?DEV318943 PUP    Y=-1465.40             ?DEV294753 SD#   Y=-1459.80
X36196                                   T, X1144-X11-X10-X11-X127-X10-14_CO,
X1797.20                                 X1144-X11-X10-X11-X127-X10-X15-U21_OU
X1144-X11-X11-X127-X10-X15-U21_IN                                 2

*****  UN-MATCHED  *****                            *****  UN-MATCHED  *****

DISCREPANCY                              15

-- NODE X1144-X11-X10-X11-X127-X10-X15-U21_OUT
--WITH UN-MATCHED DEVICES

TOTAL     15 DISCREPANCY POINTS REPORTED

                DISCREPANCY POINTS SUMMARY

        15 MATCHED MODE TO UN-MATCHED LAYOUT AND SCHEMATIC DEVICES

                DEVICE MATCHING SUMMARY BY TYPE.

TYPE      SUB-TYPE      TOTAL DEVICE      UN-MATCHED DEVICE
```

```
                                          SCH.     LAY.     SCH.     LAY.

MOS      P                               126875   126876     10       11
MOS      N                               123029   123029     10       10
BJT      SP                                 168      168      0        0
RES      N                                 247      247      0        0
RES      N1                                                  0        0
RES      N                                 403      403      0        0
RES      NN                                  9        9      0        0
RES      I0                                  6        6      0        0
RES      P1                                 12       12      0        0
RES      P1                                  7        7      0        0
CAP      BL                                 24       24      0        0
DIO      HD                                 96       96      0        0
CAP      N                                  21       21      0        0
CAP      PN                                  1        1      0        0
         PS                                170      170      0        0

*****  UN-MATCHED SCHEMATIC DEVICES  *****
      (LIST UP TO 100.)

OCCURRENCE NAME  X1144-X11-X18-X17-U21_OUT
?DEV296570 NAND      X1144-X11-X18-X17-U21_OUT,
X1144-X11-X18-X17-U21_IN2,                          *****  UN-MATCHED  *****
X1144-X11-X18-X17-U21_IN2
8-X17-IM12      X1144-X11-X1                         *****  UN-MATCHED  *****
8-X17-IM9
?DEV295484 MOS N   ?  ---     L = .35               *****  UN-MATCHED  *****
W = 3.00        X1144-X11-X1
8-X17-IM12      X1144-X11-X1                         *****  UN-MATCHED  *****
8-X17-IM9

OCCURRENCE NAME  X1144-X11-X18-X17-U21_OUT
?DEV295506 MOS  ?   ---     L = .35
W = 1.00        X1144-X11-X1                         *****  UN-MATCHED  *****
8-X16-U6_CO, DOND, DVDD,
X1144-X11-X18-X17-U21_IN2, DVDD,
X1144-X11-X18-X17-U21_UT_DRAIN,                      *****  UN-MATCHED  *****
X1144-X11-X18-X17-U21_OUT

OCCURRENCE NAME  X1144-X11-X18-X15-U21_OUT
?DEV296582 NAND      X1144-X11-X18-X15-U21_OUT,
X1144-X11-X18-X17-U21_IN2                            *****  UN-MATCHED  *****
X1144-X11-X18-X15-U21_CO,
X1144-X11-X18-X17-U21_IN2
?DEV295915 MOS N     ?   ---     L = .35             *****  UN-MATCHED  *****
W = 1.00        X1144-X11-X1
8-X15-U6_CO, DGND,
X1144-X11-X18-X14-U21_UT_DRAIN,
?#X144-X11-X18-X15-U21_UT_DRAIN
W * * 1.20       .35
?DEV295938 MOS  ?    ---                             *****  UN-MATCHED  *****
```

8-X15-mM12
X1144-X11-X18-X15-U21_OUT, DVDD,
7X1144-X11-X18-X15-U21_UT2_IN2
X1144-X11-X18-X15-U21_UT_DRAIN,
X1144-X11-X18-X15-U21_OUT
?DEV259617 MOS P   -----   L = .35   X1144-X11-X1 :   :
   W = 3.00
?DEV259616 MOS N   -----   L = .35   X1144-X11-X1 :   UN-MATCHED
8-X15-mM11
X1144-X11-X18-X15-U21_OUT,
X1144-X11-X18-X15-U21_OUT
?DEV259659 MOS N   -----   L = .35   X1144-X11-X1 :   ..... UN-MATCHED .....
OCCURRENCE NAME X1144-X11-X18-X14-U21_OUT
8-X14-mM9   DVDD,
X1144-X11-X18-X14-13_CO_DVDD,
X1144-X11-X18-X14-U21_UT2_IN2
X1144-X11-X18-X14-U21_UT_DRAIN
?DEV259682 MOS P   -----   L = .35   X1144-X11-X1 :   ..... UN-MATCHED .....
   W = 1.20
8-X14-mM9
X1144-X11-X18-X14-13_CO_DVDD,
7X1144-X11-X19-X14-U21_UT_DRAIN,
X1144-X11-X18-X14-U21_OUT
?DEV259660 MOS N   -----   L = .35   X1144-X11-X1 :   ..... UN-MATCHED .....
   W = 3.00
?DEV259681 MOS P   -----   L = .35   X1144-X11-X1 :   ..... UN-MATCHED .....
8-X14-mM11
X1144-X11-X18-X14-U21_OUT,
X1144-X11-X18-X14-U21_OUT
?DEV259680 MOS N   -----   L = .35   X1144-X11-X1 :   ..... UN-MATCHED .....
OCCURRENCE NAME X1144-X11-X10-X127-X10-X14-U21_OUT
?DEV259636 NAND   DVDD,
OUT, X1144-X11-X10-X127-X10-1-O_2N
, IN2
?DEV259328 MOS N   -----   L = .35   X1144-X11-X10-X127-X10-O_2N,
0-X11-X27-X10-X1402-mM9   X1144-X11-X:
ALGND, 7X1144-X11-X10-X127-X10-1-O_2N,
402-U21_OUT
?DEV265349 MOS N   -----   L = .35   X1144-X11-X: ..... UN-MATCHED .....
X1144-X27-X10-X1402-mM12
ALVDD, X1144-X10-X10-1-O_2N,
02-U21_OUT
?DEV265327 MOS N   -----   L = .35   X1144-X11-X: ..... UN-MATCHED .....
   W = 3.00

0-X11-X127-X10-X1402-mM10
X1144-X11-X127-X10-X1402-U27_
IN2 7X1144-X11-X10-X11-X127-X10-X140
IN2, 2-U21_UT_DRAIN, X1144-X11-X127-X10-X12
7-X10-X102-U21_OUT
?DEV265348 MOS P   -----   L = .35   X1144-X11-X: ..... UN-MATCHED .....
0-X11-X127-X10-X1402-mM11
0-X11-X10-X10-X1402-U27_
IN2, X1144-X11-X10-X11-X127-X10-O-I4_CO
2-U21_UT_DRAIN, X1144-X11-X127-X10-X15-U21_OUT
?DEV265414 MOS N   -----   L = .35   X1144-X11-X1 :   ..... UN-MATCHED .....
2
0-X11-X127-X10-X15-mM9
X1144-X11-X10-X11-X127-X10-O-I4_CO
ALGND, 7X1144-X11-X10-X127-X10-X15-U27_
5-U21_UT_DRAIN   X1144-X11-X127-X10-X1
?DEV265437 MOS P   -----   L = .35   X1144-X11-X1 :   ..... UN-MATCHED .....
   W = 1.20
0-X11-X127-X10-X15-mM10
X1144-X11-X10-X11-X127-X10-O-I4_CO
0-X11-X10-X10-X15-U27_IN
2, X1144-X11-X127-X10-X15-U2
LUT_DRAIN, X1144-X11-X127-X10-X1
5-U21_OUT
?DEV265435 MOS N   -----   L = .35   X1144-X11-X1 :   ..... UN-MATCHED .....
0-X11-X127-X10-X15-mM11
X1144-X11-X127-X10-X15-U21_IN
2, X1144-X11-X127-X10-X15-U2
2, ALVDD, X1144-X11-X127-X10-X15
X15-U21_OUT
   W = 3.00   L = .35
?DEV109742 MOS P   -----   L = .35
   W = 3.00   Y=-475.68
                                       X-1209.28   Y=-475.68
                         -----   ..... UN-MATCHED LAYOUT DEVICES .....
                                       (LIST UP TO   100)
                                       394828, 777951, 777952
1   ?DEV294(253 5PN)
                         -----   ?DEV179720 MOS P
                                       T, X1144-X11-X10-X11-X127-X10-X15-U21_OR
                                       X1144-X11-X10-X11-X127-X10-I-O_CO,
                                       2   Y=-1459.80
                                       Y=-1797.10   X-1797.10
                                                          2
                                                          ?DEV179203 MOS N

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```
: X=1197.95      Y=-1459.80
  X144-X11-X10-X41-X127-X10-X15-U21_CU
  X144-X11-X10-X41-X127-X10-X15-U21_CU
T, 7589849
: W = 1.20
: ?DEV17592I0 MOS N                    L = .35
  X=1197.90    Y=-1459.80
  X144-X11-X10-X41-X127-X10-X15-U21_IN
  2. ALGND, 7589849
: OUT, 7589849
  W = 1.20
: ?DEV2949+9.I SDW
  X=1197.90    Y=-1434.80
  W = 1.20
: ?DEV18I904 MOS N                     L = 35
  X=1771.90    Y=-1434.80
  X144-X11-X10-X41-X127-X10-X1402-U21_
  OUT, X144-X11-X10-X41-X127-X10-1C_2N
  X144-X11-X10-X41-X127-X10-X1402-U21_
  OUT, 7589994
  L, IN2
  W = 1.20
: ?DEV21995 MOS N                      L = 35
  X=1771.90    Y=-1434.80
: X=1772.75     Y=-1434.80
  X144-X11-X10-X41-X127-X10-X1402-U27_
  IN2, ALGND, 7589994,
: ?DEV29.6765 SDW                      L = 35
  X=1047.30    Y=-1068.10
  X144-X11-X18-X17-U21_OUT,
  X144-X11-X18-X15-U21_IN2
: ?DEV21792 MOS N
  X144-X11-X18-X15-U21_IN2
: ?DEV219965 MOS N
  X=1048.15    Y=-1068.10
  X144-X11-X18-X17-U21_IN2
  X144-X11-X18-X17-U21_OUT, 7593222
  W = 1.20
: ?DEV23994 MOS N                      L = 35
  X=104+.30    Y=-1068.10
  X144-X11-X18-X41-U27_IN2, DGND,
  7593322
  W = 1.20
```

```
  X144-X11-X18-41-U21_CO,
  X144-X11-X18-X41-X14-U27_IN2
: ?DEV212960 MOS N                     L = .35
  X144-X11-X18-X41-X127-X10-14_CO,
  X144-X11-X18-X14-U27_IN2, DGND,
: X=1098.55    Y=-1043.10
: ?DEV219999 MOS N                     L = 35
  X=1097.70    Y=-1043.10
  X144-X11-X18-X14-U27_OUT, 7593135
: N = 1.20
: ?DEV219343 PUP                       L = .35
  X=1097.20    Y=-1065.40
  X144-X11-X18-X14-U27_IN2, DGND,
  ALVDD, 336196
  W = 1.20
: ?DEV21659 MOS P                      L = .35
  X=1772.00    Y=-1065.40
  X144-X11-X10-X41-X127-X10-14_CO,
  X144-X11-X10-X41-X127-X10-X14-U27_
  2, ALVDD, 336196
: ?DEV31374 PUP                        L = .35
  X=1772.00    Y=-1640.40
  X144-X11-X10-X41-X127-X10-10_2N
  X144-X11-X10-X41-X127-X10-X1402-U27_
  IN2
: ?DEV33081 MOS P                      L = .35
  X=1772.00    Y=-1440.40
  X144-X11-X10-X41-X127-X10-10_IN,
  ALVDD,  33748I
: ?DEV31382 PUP                        L = .35
  X=1772.00    Y=-1440.40
  X144-X11-X10-X41-X127-X10-X1402-U27,
  IN2, ALVDD, 33748I
: ?DEV218994 PUP                       L = .35
  X=1772.40    Y=-1073.70
  X144-X11-X18-X17-U27_IN2
: ?DEV218996 MOS P                     L = .35
  X=1048.75    Y=-1073.70
  X144-X11-X18-16_CO, DVDD, 757065
: ?DEV218995 MOS P                     L = .35
  X=1067.40    Y=-1073.70
  X144-X11-X18-X17-U27_IN2, DVDD,
  W = 3.00
: ?DEV18911 PUP                        L = .35
  X=1056.40    Y=-1048.70
  757548, X144-X11-X18-14_CO.
```

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```
X1144-X11-X18-X15-U27_IN2
?DEV91891891 FUP       L = 35
X1144-X11-X18-X15-U27_IN2, DVDD,
X1105040  NOS  P     L = 35
X1144-X11-X18-14_CO, DVDD, 755946
X1105575  NOS  P     L = 35
X1144-X11-X18-X15-U27_IN2
   W = 3.00           L = 35
755948
?DEV31891891 FUP       L = 35
755944, X1144-X11-X18-13_CO,
X=1097.80  Y=-1048.70
755949, X1144-X11-X18-14-U27_IN2
   W = 3.00           L = 35
X1097.80  Y=-1048.70
X1144-X11-X18-13_CO, DVDD, 755949
X=1099.15  Y=-1048.70
X1144-X11-X18-X14-U27_IN2, DVDD,
   W = 3.00           L = 35
755949
?DEV62    Y=-162.80    L = 35
   X=-427.75  ?CAPPS
79829      Y=-162.80
?DEV65?CAPPS
79830      Y=-162.80
   X=-406.35  ?CAPPS
79830      Y=-162.80
?DEV66?CAPPS
   X=-406.35  Y=-162.70
79831      Y=-162.80
?DEV64    ?CAPPS
79831.95   Y=-162.70
?DEV65    Y=-162.70
79831
?DEV65?CAPPS
   X=-1392.00 Y=-162.70
79832
?DEV68    ?CAPPS
   X=-1166.45 Y=-162.70
79834      ?CAPPS
?DEV69    Y=-162.70
79835      Y=-162.70
?DEV69?CAPPS
   X=-406.35  Y=-162.70
79836      Y=-162.70
?DEV70?CAPPS
   X=-1382.30 Y=-162.70
79836
?DEV71?CAPPS
   X=-1155.70 Y=-162.70
79837      Y=-162.70
?DEV72    ?CAPPS
   X=-144.95  Y=-162.70
79838      ?CAPPS
79838.85   Y=-162.70
?DEV72    ?CAPPS
   X=-678.55  Y=-162.70
79839
?DEV73?CAPPS
   X=-661.25  Y=-162.70
79840      ?CAPPS
?DEV74?CAPPS
```

```
   X=-344.85  Y=-162.65
79841      ?CAPPS
?DEV75     Y=-162.65
   X=-931.30  Y=-162.65
79842      ?CAPPS
?DEV76    Y=-162.65
   X=-917.75  Y=-162.65
79843      ?CAPPS
?DEV31    ?CAPPS
   X=-427.75  Y=-148.10
79844      ?CAPPS
?DEV82    Y=-148.10
   X=-406.35  Y=-148.10
79845      ?CAPPS
?DEV83    Y=-148.10
   X=-406.35  Y=-148.10
79846      ?CAPPS
?DEV84    ?CAPPS
   X=-84.05   Y=-148.10
79848      ?CAPPS
?DEV85    Y=-148.10
   X=-62.55   Y=-148.10
79849      ?CAPPS
?DEV87    Y=-148.10
79849.05   Y=-148.10
?DEV88?CAPPS
   X=-1392.00 Y=-148.00
79850
?DEV89?CAPPS
   X=-1166.45 Y=-148.00
79851      ?CAPPS
?DEV90    Y=-148.00
79852      Y=-148.00
?DEV91?CAPPS
   X=-1382.30 Y=-148.00
79853
?DEV92?CAPPS
   X=-1155.70 Y=-148.00
79854      ?CAPPS
?DEV93    Y=-148.00
   X=-144.95  Y=-148.00
79855      ?CAPPS
?DEV94    Y=-148.00
79856      Y=-148.00
?DEV95?CAPPS
   X=-678.55  Y=-148.00
79857
?DEV96?CAPPS
   X=-661.25  Y=-148.00
79858      ?CAPPS
?DEV97    Y=-147.95
79860      ?CAPPS
?DEV98?CAPPS
```

X887alvss.lvs

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X887alvss.lvs

```
?DEV095    X=-931.30    ?CAPPS    Y=-147.95
794881
?DEV099    X=-317.75    ?CAPPS    Y=-147.95
794882
?DEV104    X=-427.75    ?CAPPS    Y=-133.40
794883
794885
?DEV106    X=-384.95    ?CAPPS    Y=-133.40
794884
?DEV107    X=-661.25    ?CAPPS    Y=-133.40
?DEV108
794886
?DEV110    X=-105.55    ?CAPPS    Y=-133.40
794865
?DEV111    X=-1392.00   ?CAPPS    Y=-133.30
794866
?DEV113    X=-1116.45   ?CAPPS    Y=-133.30
?DEV116
794868
794869
?DEV117    X=-1144.95   ?CAPPS    Y=-133.30
794870
?DEV119    X=-695.85    ?CAPPS    Y=-133.30
794871
?DEV122    X=-661.25    ?CAPPS    Y=-133.30
794872
794873
?DEV123    X=-944.85    ?CAPPS    Y=-133.25
794874
?DEV126    X=-427.75    ?CAPPS    Y=-133.25
794875
?DEV128    X=-384.95    ?CAPPS    Y=-118.70
794876
794877
?DEV129    X=-41.05     ?CAPPS    Y=-118.70
794878
?DEV130    X=-1392.00   ?CAPPS    Y=-118.60
794879
?DEV132    X=-1372.60   ?CAPPS    Y=-118.60
794880
?DEV133
```

X887alvss.lvs

```
?DEV133    X=-1166.45   ?CAPPS    Y=-118.60
794881
?DEV135    X=-1144.95   ?CAPPS    Y=-118.60
794882
?DEV136    X=-1372.60   ?CAPPS    Y=-118.60
?DEV138
794883
794884
?DEV139    X=-661.25    ?CAPPS    Y=-118.60
794886
?DEV141    X=-944.85    ?CAPPS    Y=-118.55
794885
?DEV142    X=-931.75    ?CAPPS    Y=-118.55
?MDNY146
794887
?DEV142    X=-384.95    ?CAPPS    Y=-104.00
794888
794889
?DEV149    X=-1144.95   ?CAPPS    Y=-104.00
794890
?DEV150    X=-41.05     ?CAPPS    Y=-104.00
794891
?DEV153    X=-1392.00   ?CAPPS    Y=-103.90
794892
794893
?DEV154    X=-1116.45   ?CAPPS    Y=-103.90
794894
?DEV155    X=-1144.95   ?CAPPS    Y=-103.90
794895
?DEV155    X=-695.85    ?CAPPS    Y=-103.90
794895
?DEV157    X=-661.25    ?CAPPS    Y=-103.90
794896
?DEV158    X=-1372.60   ?CAPPS    Y=-103.90
794897
           X=-944.85    ?CAPPS    Y=-101.85
```

THE REST OF UN-MATCHED LAYOUT DEVICES ARE NOT LISTED
....
....
LVS SUMMARY (REPEATED)
....
....

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```
········· LVS DEVICE MATCH SUMMARY ·········

········································································
NUMBER OF   UN-MATCHED SCHEMATICS DEVICES ........ =        5
NUMBER OF   UN-MATCHED LAYOUT     DEVICES ........ =      359
NUMBER OF   MATCHED SCHEMATICS    DEVICES ........ =   136208
NUMBER OF   MATCHED LAYOUT        DEVICES ........ =   136208
········································································
········· DISCREPANCY POINTS SUMMARY ·········
········································································

15 MATCHED NODE TO UN-MATCHED LAYOUT AND SCHEMATIC DEVICES

········································································
········· DEVICE MATCHING SUMMARY BY TYPE ·········
········································································
```

TYPE	SUB-TYPE	TOTAL DEVICE SCH.	TOTAL DEVICE LAY.	UN-MATCHED DEVICE SCH.	UN-MATCHED DEVICE LAY.
MOS	P	122675	122676	10	11
MOS	N	123029	123029	10	10
BJT	SP	168	168	0	0
RES	P	247	247	0	0
RES	NL	1	1	0	0
RES	N	403	403	0	0
RES	NW	6	6	0	0
RES	P1	9	9	0	0
RES	P2	12	12	0	0
RES	B1	4	4	0	0
RES	ND	24	24	0	0
DIO	N	96	96	0	0
CAP	PW	32	32	0	0
CAP	PS	170	170	0	0

```
········································································
········· "/N" -- SCHEMATIC AND LAYOUT MAY NOT MATCH
·········              CHECK ALL ABOVE DISCREPANCY
·········              AND WARNING MESSAGES
········································································
```

Statistics Of Layers

Layer #	Rectangles	Polygons	Paths	Ellipses	Labels	Nodes
0	10	1	13	0	247	0
1	7351	140	12	0	0	0
2	7889	461	12	0	0	0
4	6546	1693	40	0	0	0
5	10831	499	5	0	0	0
7	147304	0	3	0	0	0
8	31753	2388	11513	0	0	0
9	140836	0	2	0	1	0
10	7280	228	98420	0	0	0
11	1	0	1	0	0	0
12	77	13	0	0	0	0
13	2	0	0	0	0	0
14	123135	0	3	0	0	0
15	1158	113	53811	0	1	0
19	11	0	0	0	0	0
21	0	0	0	0	2455	0
22	0	0	0	0	2413	0
24	0	0	0	0	1945	0
25	134	2	0	0	0	0
33	147	23	0	0	1	0
38	50739	15317	0	0	0	0
40	3448	1354	0	0	0	0
43	6633	86	0	0	0	0
44	3448	1354	0	0	0	0
56	244	0	0	0	0	0
57	15788	2500	0	0	0	0
58	15549	2585	0	0	0	0
59	137044	57314	1	0	0	0
63	9	2	1	0	0	0
64	154	87	52	0	7775	0
235	9	6	0	0	0	0

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input job type = [genlyr]

```
LVS
    LVS.              LVS with Stamps.
    LVSS              Drc's only   Standard Pitch Pads
    DRC               Drc's only Fine Pitch Pads
    DRCFP             Manufacturing Drcs.
    MDRC
    ERC               ERC(Ercs only)
    ESDLAT            Esd and Latchup checks.
    GBCHK             Latchup Guardband/semi acting checks.
    OPSHRTS           OPSHRTS (Opens/Shorts only)
    DLVSS             DRC's and LVS with stamps.
    DERC              Drc and ERC
    DRCF              Drc's with genlayers output.
    ALLDRC            All Drc's for CR.
    ANTENNA           Antenna checks.
    XOR1              Xor of two layers in 140 dgtm strm 1 file.
    XOR2              Xor <140 dgtm strm in file A> to <in> strm file B>
    GENLYR            Generate cutput layer only.
    LPEI              LPE (parasitic cap only) lumped ...d.
    LPEIG             LPE (Para.- M/S ...) lumped ...d.
    LPEIGSD           LPE (Para.- M/S gnd.- s  term. c:ps) lumped to gnd.
    LPEC              LPE (Para.- tms) s -coupled inc.  gnd.
    PNCHK             Drcs or pla...r gen..ayers.
    PNCHKFP.          Drcs (Fine Pitch) Cr s -placed genlayers.
    PNLVS.            LPE on ... g...  y .s.
```

```
                    Job Parameters

( 0)  system                                       [EDSC]

( 1)  Master Subblock <schematic>                  [V9807ac . 1]

( 2)  Cdl Filename                                 [58074ce .cdl]

( 3)  Primary Structure                            [98074]

( 4)  Stream file name                             [98074.g..]

( 5)  Output Stream file name                      [558-4.g..]

( 6)  Power Nodes                                  [2-V.. ... : VDD OVD PVD )]

( 7)  Ground Nodes                                 [A-RN .: .'D GND OGN PGN ) S0BGND]

( 8)  Keep Temporary data <YES/NO/SMART> [YES]

( 9)  Device Size Checking                         [YES]

(10)  Optional extra parameters

(11)  Save Project file

(12)  Help

(13)  Abort program

(14)  Exit

Enter number <0-14>:-
```

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